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Five Years' Operation of the Reception Unit in the Brandon Hospital

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IT is with considerable pleasure that I have looked forward to this opportunity of presenting to you the work which has been accomplished during the past few years by the reception unit of the Brandon Mental Hospital. Some four months ago this study was commenced with, however, at that time little idea that such a favourable opportunity as this would arise.

During the past few years the subject of psychopathic hospitals ha been one of increasing interest, and if one looks into the psychiatric literature of the past ten years one will find it a topic frequently discussed. Regarding the work of the reception unit in mental hospitals the function of which we find very closely allied with that of the psychopathic hospital, one finds rather curiously, however, a certain amount of apathy and indifference. It is with a view towards arousing in this subject the interest we feel it deserves that this paper has been written.

The Plan of the Building

The building of a reception unit at Brandon was first considered seriously in 1920. Its aims may perhaps be most clearly stated by quoting the words of our former Superintendent, Dr. C. A. Baragar now Provincial Psychiatrist in Alberta, in his annual report of 1920 when he says:—"It is to be hoped that the Institution will ultimately be organized into the following departments: a reception and acute hospital fully equipped for the most searching investigation of new admissions containing laboratory, operating room, departments for hydro-therapy, electro-therapy and occupational therapy. Here all cases will receive intensive treatment. This unit may be said to be the keystone on which the efficiency and success of the whole institution will depend."

The building was completed and opened for occupation on January

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19th, 1925. It is of concrete and brick, and thoroughly fireproof. There are three blocks connected by corridors, a north block for the housing of staff and laboratories, a central block with kitchen and dining rooms below, and operating rooms, hydro-therapy rooms and infirmary above, and a south block consisting of an east and west wing for women and men respectively, with three floors of wards on each side. The day rooms are bright and airy and open to sun balconies. The dormitories are well provided with light and accommodation. Since that time a post-mortem room and dispensary have also been located in the north block. The portion intended to be used as an infirmary has been used instead as a ward for female senile cases.

Medical Staff

The medical staff consists of a personnel of two, with the addition of a student interne during the summer months. In addition, other members of the staff share in the taking of histories and working up of cases. All new cases are admitted to this building for observation and treatment. Acute cases remain throughout the duration of their illness, while those cases which become chronic are later transferred to the asylum proper. On occasion, very excited or violent patients are also transferred, and it is sometimes necessary to transfer cases when the admission rate becomes excessive and room is required, though this latter procedure is avoided as far as possible. During the past year it has become the practice when possible of re-transferring cases from the main building for special lines of treatment or observation, and also for a period of convalescence, prior to discharge, of those cases who have shown improvement in the main building. This is practically the only change in routine since the unit was opened.

Evaluating the Work

In order to properly evaluate the work that has been done, a study has been made of the statistics during the five years previous, as compared to the five years following the installation of the unit. The points investigated may be grouped under three main headings: first, the *admission rate*; second, the *discharge rate*, and third, the *death rate*. Under the admission rate we have attempted to estimate the effect of the unit on the total admission rate, the readmissions, and the admissions of voluntary, senile and psychoneurotic patients. Under the heading of discharges the percentage of recoveries and duration of time in hospital has been worked out. The duration of their illness before admission we were reluctantly forced to leave out as sufficient data were not obtainable to give us accurate information on this point. Regarding the death rate, the percentage of deaths in each five years was obtained, and also the percentage of deaths directly attributable to the mental disease.

The *total admissions* were found to be 852 in the first five-year period as compared with 1,078 in the next five-year period. This represents an increase of approximately 26 per cent and is what one usually finds if a hospital improves its facilities and methods of treatment,—the explanation probably lying in the increased confidence with which the public regards the hospital.

The readmissions were 150 as compared to 212, or an increase from 25.3 per cent to 29.7 per cent during the unit period. The voluntary admissions show most strikingly perhaps the changing attitude of both the patients and the public towards our hospital since the operation of the unit. From 1920-1925 we had 16 voluntary admissions, while during the next five years 99 patients, or over six times as many, were admitted on the voluntary forms. The number of senile and psychoneurotic types of patients were estimated because it was felt that these two groups were the most accurate index of the public's attitude towards our hospital. The stigma of having their relatives die in an asylum has always acted as a stumbling block with our senile cases, the relatives often feeling that they would rather endure the added care and responsibility than have it said that their grandfather or grandmother died in an asylum; this in spite of the fact that they are often definitely institutional cases and would benefit by the increased facilities for their care in hospital. We found an increase in the senile admission rate of 94.1 per cent since the unit has been in operation. Against this, however, one must bear in mind that in a young province like Manitoba we can also expect a corresponding increase in the senile population. The census for the past ten years, however, shows this increase to have been slightly under 30 per cent, so that we may safely assume that our senile admissions have increased at a proportionately greater rate than has the senile population.

The psychoneurotics form an exceedingly interesting group that in many cases will repay careful investigation and thought. They include many of life's misfits and unfortunates and are a class of patients who may often derive material benefit from a course of psychiatric investigation. As you may clearly understand, this is a type which does not as a rule seek treatment in a mental hospital. Our figures have shown an increase of 74.1 per cent in this type of patient.

The *discharges* were classified as socially recovered patients or those who were able to carry on in the outside world unaided, and those who were unable to go out on their own, but who were sufficiently improved to get along in a protected environment. Amongst the socially recovered type we found that in the first five years we were able to discharge 20 per cent. During the next five years this rose to 28.4 per cent. The percentage of improved patients discharged in the first five years was 8.7, while in the next five years it was 13.7, giving a total discharge rate of both socially recovered and improved patients of 28.7 per cent from 1920-1925 and 42.1 per cent from 1925-1930. The dura-

tion in hospital of the socially recovered group averaged 5.97 months during the first five years and 5.87 months during the next five years. With the improved patients, 7.46 months during the first five years and 7.21 months in the next five years. A small percentage of patients discharged were not included in the figures given above, namely, unimproved patients discharged against advice, and deported patients.

The findings in regard to the *death rate* were also quite gratifying. These were divided into those patients whose deaths may be considered to have been directly due to the mental illness, namely exhaustions and suicides, deaths due to injury, and deaths due to general causes. Of the exhaustions there were 11 deaths during the period from 1920-1925 or 1.29 per cent of the total admissions during that period. In the five years from 1925-1930 we had only seven deaths from exhaustion, or 0.65 per cent. Suicides were really too infrequent to base any conclusions upon, being two in the first five-year period and three in the second five year period. Injuries numbered six from 1920-1925 and three from 1925-1930, or a reduction in percentage figures from 0.69 per cent to 0.28 per cent. Deaths from general causes amounted to 11.39 per cent in the five years preceding the unit and 10.29 per cent during the unit period. The total number of deaths from all causes was 115 or 13.5 per cent of the admissions during 1920-1925 and 123 or 11.4 per cent of the admissions from 1925-1930. These figures we feel are concrete proof of the increased facilities for observation and treatment which a reception hospital offers. It might be added here that in the planning of our unit particular stress was laid upon this point, the building being intended to serve primarily as a general hospital with special facilities for the treatment of mental diseases. It was felt that by this means the physical aspect of our cases would not then be overlooked, and our treatment be established along better balanced lines.

Other Advantages

In the light of these figures then we feel that insofar as the care of the patient goes the value of a reception unit to a mental hospital can be fairly definitely established. Over and above this, however, other advantages accrue which cannot be shown in such a tangible manner. One of the greatest assets that our reception hospital has been to us is in the good work it has been able to do in regard to the education of the public in mental disease. The Provincial Psychopathic Hospital in Winnipeg has already done much excellent work in this respect. Its scope must of necessity, however, be limited to that portion of the province which it serves, and in an area the size of Manitoba the need for more than one institution of this sort is obvious. Furthermore, it is my belief, rightly or wrongly as the case may be, that a psychopathic department connected with a general hospital can do less in educating the public frame of mind towards mental hospitals than a reception

hospital can. The man on the street on hearing of a friend being admitted to the psychopathic thinks of his illness in terms of a nervous breakdown, whereas if this same friend be committed directly to an asylum, he is then thought of as having become isane. In a similar fashion a more rational attitude on the part of the public is taken towards a patient admitted to the reception unit in a mental hospital.

This attitude might be further strengthened by the figures obtained during our study of the operation of our reception hospital for, although this has not been done up to the present, these statistics could readily serve as a basis for a series of public lectures throughout the surrounding community which would be of material benefit in causing the public to adopt a more enlightened attitude towards mental disease and towards our hospital.

Most important of all in this respect is the fact that it is the patient who benefits most by this more tolerant attitude of the public. Too often we have found our patients following discharge have been unable to live down the stigma of having been in a mental hospital, and in a large measure because of this fact are unable to get along in the outside world. The patient admitted to a reception hospital who recovers and is discharged from there suffers to a considerably lesser degree from this attitude on the part of the public, and consequently finds greater sympathy and understanding when he again goes forth into the world.

Furthermore, the patients themselves are better equipped upon discharge to again pick up the threads of life than would be the case if the duration of their mental breakdown had been spent in the asylum proper. For, with the increased facilities for individual care and supervision which the unit offers, there is less tendency for the patient to get into a rut. Their life in hospital more closely approximates the conditions existing outside, thus facilitating their readjustment on discharge.

The attraction which a reception unit offers to the medical profession is another point which should not be overlooked. Difficulty has occurred in the past in obtaining recruits from the medical ranks for our staff, and also in holding them. It is my belief that a reception unit acts as an inducement to the medical profession to enter the field of psychiatry, and attracts a more permanent staff. Furthermore, since our unit has been in operation it has been possible to give one or two internships each year to third year medical students during the summer vacation, thus creating fairly early in their course an interest in psychiatry. In at least two cases these internes following graduation have returned to the hospital as members of the medical staff.

Summary

Briefly summarising the work which has been performed by our reception unit during its period of operation we find:—

1. That it offers increased facilities for observation and treatment of patients as evinced by the increased number of recoveries, the shortening of the duration of their time in hospital, and the lowered death rate.
2. That it promotes a more rational attitude on the part of the public towards our asylums and psychiatry in general.
3. That it enables us to reach a wider range of patients, some of whom would not otherwise seek treatment.
4. That patients find it easier to adjust themselves again to the outside world due in part to the more varied activities open to them while in hospital, and in part to the lessened stigma placed upon them by the public upon their discharge.
5. That it acts as an inducement to the medical profession to enter the field of psychiatry, attracts a more permanent staff, and is of some assistance to the university in the teaching of psychiatry to students.

It will not be out of place here, I am sure, to add as a fitting conclusion to my subject a small item inserted in "The Brandon Sun" two months ago. This item exemplifies very strikingly the point I have attempted to bring out regarding the change in the public attitude towards mental hospitals. It reads as follows:—

"Mrs. T——— P——— of Clan William desires to thank the doctors and nurses of the Unit of the Mental Hospital for their many expressions of kindness extended to her mother, Mrs. E——— R———, who was their patient."

Christmas Seal Sale

CANADIAN TUBERCULOSIS ASSOCIATION

Last year, through the united efforts of the Canadian Tuberculosis Association and the scores of Local Committees throughout Canada, the splendid sum of $161,000 was raised. Each Local Committee in undertaking the Seal Sale had some particular local anti-tuberculosis objective. Thus the amount of this large fund, less the actual cost of the campaign,—approximately ten per cent was made available for local programmes throughout Canada.

The design of the seal for this year is the work of a Canadian artist, and has been heartily approved. Every piece of printed literature required in the Campaign has been produced in Canada. Let us all help to make this year's sale a Canadian record.

BUY CHRISTMAS SEALS - - FIGHT TUBERCULOSIS

Quelques remarques sur l'importance, au point de vue national, de réduire notre mortalité infantile*

EMILE NADEAU, M.D., D.H.P.,

Directeur-adjoint du Service provincial d'Hygiène, Hôtel du Gouvernement, Québec

SI vous tenez à connaître la raison de ma participation active aux travaux de cette conférence . . . . . cherchez la femme! Lors de réunions semblables à celle-ci, je me forge "une félicité qui me fait pleurer de tendresse," en caressant l'illusion de pouvoir jouer le rôle reposant d'auditeur attentif et intéressé, mais il arrive trop souvent que je sois condamné au travail forcé!

Cette fois, c'est votre aimable trésorière, Madame Tessier, qui m'a jugé et condamné, sans droit d'appel, prétendant que la terre cesserait probablement de tourner si je ne consentais pas à vous présenter au moins quelques remarques sur l'importance, au point de vue national, de diminuer notre mortalité infantile. Malgré le faux diction à l'effet qu'il n'y a rien d'impossible, j'ai constaté qu'il était bien impossible pour un homme ordinaire de se taire lorsqu'une femme vous invite aussi aimablement à parler et vous assure en même temps que ses compagnes sont disposées à s'infliger le supplice de vous écouter.

Avant de conclure à la nécessité de réduire notre mortalité infantile, il importe de rechercher si celle-ci peut être réduite davantage. Heureusement, pour notre fierté nationale, il est consolant de constater tout le progrès réalisé dans ce domaine depuis vingt-cinq ans, grâce au dévouement inlassable de toutes les associations qui s'intéressent au bien-être de l'enfance, grâce à la coopération du clergé ainsi qu'à l'appui moral et financier des autorités fédérales, provinciales et municipales, avec le concours de plus en plus efficace d'une population plus intéressée et mieux renseignée.

Hélas, aux temps anciens, où je possédais autant d'enthousiasme que de jeunesse, j'eus la témérité de faire, deux années consécutives, "une promenade mélancolique dans nos cimetières de Québec," pour découvrir qu'alors notre taux de mortalité infantile dans la bonne et paisible cité de Québec était de 250 par 1,000 naissances. Ce taux a été graduellement abaissé jusqu'à 140 par 1,000 naissances vivantes, en 1929, grâce au travail énergique et persévérant qui a été fait, surtout celui dirigé par votre excellente trésorière qui a bien voulu entreprendre et mener à bonne fin une tâche beaucoup plus difficile que celle de surveiller votre trésor.

**Lu à la réunion annuelle du Conseil canadien de la Sauvegarde de l'enfance et de la famille, Chateau Frontenac, Québec, le 23 février 1931.*

Pour notre Province, en général, la même réduction graduelle s'est opérée, surtout au cours des dix dernières années, notre taux de mortalité infantile ayant été de 120 par 1,000 naissances vivantes, en 1929, avec une réduction correspondante de notre mortalité générale à 13.8 par 1,000 de population.

Si nous pouvons enrégistrer de tels résultats, bien que relatifs, s'il nous est donné de constater chaque jour l'amélioration rapide de nos différents organismes destinés à conserver la vie et à améliorer la santé, il nous faut remonter bien haut pour en trouver la cause première et en remercier les auteurs qu'il n'a pas fallu convertir à notre cause parce qu'ils l'étaient déjà. Il n'est pas question ici de faire un compliment qui pourrait être considéré comme plus ou moins servile en certains milieux, mais il s'agit plutôt de proclamer la vérité dans toute sa nudité, au risque de blesser certaines modesties. Ceux qui s'intéressent au progrès de la santé publique dans notre province, savent très bien que leurs efforts auraient été plus ou moins stériles sans la claire vision, la sage direction et l'appui moral de deux patriotes qu'il est à peine nécessaire de nommer, parce que leurs noms sont sur vos lèvres; l'honorable Premier Ministre, M. Taschereau, et l'honorable Secrétaire de la Province, M. David.

Si nous jetons maintenant un coup d'oeil rapide sur nos statistiques vitales pour le Canada tout entier, nous pourrons encore constater les progrès réalisés et s'il y aurait possibilité d'améliorer la situation. Notre Province ne faisant partie du bureau fédéral de la statistique que depuis le ler janvier 1926 et les chiffres de 1930 n'étant pas encore complets, nous limiterons nos considérations à la période de quatre années de 1926 à 1929 inclusivement.

Au cours de cette période, nos braves mères canadiennes ont fait cadeau à la patrie, plus ou moins reconnaissante, de 938,610 enfants, chiffre qui serait encore plus imposant si, par des mesures appropriées, nous y avions ajouté une proportion raisonnable des 29,562 mort-nés pendant la même période. Il est à noter que notre Province a fourni plus de 35 per cent de ces naissances alors que sa population représentait 27 per cent de la population totale.

Nous vous laissons le soin de décider si cette méthode d'immigration par le berceau est préférable à l'autre et quel est le meilleur moyen pour promouvoir l'accroissement de notre population: *par l'apport de la mère ou par les ports de mer.* Personnellement, j'ai eu avec d'autres collègues, pendant vingt-deux ans, la tâche de faire l'examen médical des immigrants au port de Québec et je puis affirmer sans craindre la contradiction que des milliers de personnes, tarées physiquement ou mentalement, ont été admises au pays contrairement à nos recommandations, pour tomber ensuite à la charge du public ou venir encombrer nos asiles d'aliénés. Les millions dépensés pour obtenir un tel résultat auraient été beaucoup plus utiles pour réduire notre mortalité générale et surtout notre mortalité infantile et maternelle, mais

il ne faut pas oublier que nos ports de mer ont toujours été plus ou moins infectés par un microbe géant: *le Bacillus politicosus*, cultivé avec soin par les compagnies de transport maritime et ferroviaire.

Ce flot d'immigration plus ou moins désirable étant maintenant arrêté par la force des choses, il semblerait désirable de diriger nos efforts vers la conservation de la vie de nos petits Canadiens, en mettant en pratique la vieille devise anglo-saxonne: "What we have, we hold."

En examinant encore nos statistiques vitales pour la période 1926 à 1929, nous trouvons que sur les 938,610 naissances vivantes, nous avons perdu 88,554 enfants avant la fin de leur première année, soit près de 95 par 1,000 naissances. Ceci représente plus de 60 décès par jour, sans tenir compte des mort-nés. A ce massacre des innocents, il faut ajouter celui des innocentes et ne pas craindre de bien graver dans notre esprit le chiffre de 5,285, représentant le nombre de nos mères canadiennes qui sont mortes de causes puerpérales, au cours de la même période. Notre Province, il importe de bien le noter, ne compte que 1704 décès sur ce total de 5,285, soit une moyenne de 5 par 1,000 naissances vivantes, chiffre certainement trop élevé, mais qui se compare favorablement à celui des autres provinces. Si nous tenons compte du taux encore relativement élevé de notre natalité, soit plus de 30 par 1,000 de population, alors que celui des autres provinces est inférieur à 25, il semblerait logique de conclure que les maternités répétées n'ont pas sur la mortalité puerpérale toute l'influence qu'on voudrait lui attribuer.

Il résulte de ces quelques considérations que nous avons fait des progrès réels, surtout depuis quelques années, puisque notre mortalité infantilea été réduite pour la Province de Québec de 142 à 120 par 1,000 naissances vivantes de 1926 à 1929, de sorte qu'en 1930, nous avons conservé au moins 1,750 enfants qui n'auraient pas atteint l'âge d'un an si le taux de 1926 avait persisté.

Si vous me permettez de blesser vos sentiments les plus intimes en évaluant la vie d'un petit canadien "home made" à la modique somme de $2,000, ceci représenterait un total de $3,500,000, de sorte que les deniers publics dépensés pour obtenir ce résultat constituent un excellent placement, au point de vue national.

Le taux de la mortalité infantile des autres provinces étant beaucoup moins élevé que le nôtre, la diminution n'a pas été aussi considérable pendant les quatre années en question, mais il y a eu tout de même amélioration et nous devons saluer en passant nos bons amis d'Ontario qui ont réussi à abaisser leur taux à 76 par 1,000 naissances vivantes.

En perfectionnant notre organisation actuelle, en multipliant nos Unités sanitaires de comtés et surtout si l'Honorable Premier Ministre veut bien consentir à garder la clef de notre Trésor au lieu de la confier à un véritable Ecossais, nous sommes persuadés qu'il est possible dans un avenir assez rapproché de réduire notre mortalité infantile au taux d'environ 75 par 1,000 naissances, de sorte que nos décès de 0 à 1 an ne

dépasseront pas le chiffre annuel de 6,000 au lieu de 10,000 actuellement. Nous contribuerons ainsi à faire oeuvre nationale en abaissant le taux général pour tout le Canada, qui est de 92, mais ne devrait pas dépasser 70.

En terminant, vous voudrez bien me permettre de résumer la situation passée et présente et vous faire part de nos espérances en vous disant que nous les hygiénistes qui avons fait le voeu dé pauvreté et consacré notre vie à promouvoir la santé publique, nous avons trop longtemps fait partie de l'église souffrante. Maintenant que nous avons été admis dans l'église militante, nous désirons nous acheminer le plus vite possible vers l'église triomphante, où la vie ne sera pas sacrifiée inutilement, où la maladie sera réduite à sa plus simple expression et où la mort prématurée n'existera plus.

LEE K. FRANKEL

Lee K. Frankel, Ph.D., Second Vice-President of the Metropolitan Life Insurance Company, died suddenly in Paris on July 25th last in the sixty-fourth year of his age. In his official relationship with this Company he made fundamental contributions to public health in the United States, in Canada and in other countries. Under his leadership the preparation and distribution of health literature, written in simple language, was undertaken by the Company. The first of these health "tracts" was called "A War on Consumption". The signal success of this effort was evidenced by the distribution of more than 12,000,000 copies. He was the first, too, to visualize the service which could be rendered by providing public health nursing for all of the Company's policy holders, and first to succeed in actually establishing such a service, demanding of it the highest efficiency. Largely through Dr. Frankel's interest the Company established a tuberculosis sanatorium for its employees at Mount MacGregor.

His services were given freely to numerous public health agencies. Thus he served as an executive officer of many national associations, including the National Tuberculosis Association, American Public Health Association, National Health Council, National Organization for Public Health Nursing, and the American Child Health Association. In co-operation with various agencies, sickness and unemployment surveys were made in many cities.

Out of a great love for humanity, Dr. Frankel did his work. The results of that work live after him, constituting the most fitting memorial for such a true servant of the people.

In his passing, public health, national and international, has suffered a great loss.

The Importance, from a National Point of View, of Reducing Our Infant Death Rate*

EMILE NADEAU, M.D., D.H.P.

Assistant Director, Provincial Bureau of Health, Quebec

IF you wish to know the reason of my active participation in the work of this conference . . . . . look for the woman. In meetings like this one, I picture to myself "a felicity that brings tears to my eyes" when I cherish the hope of being permitted to play the resting part of an attentive and interested listener, but too often I am in for hard labour.

This time, I have been judged and sentenced, without the right to appeal, by your charming treasurer, Madame Tessier, who claimed that our planet would probably stop turning were I to refuse offering a few remarks on the importance, from a national point of view, of reducing our infant death rate. Though it is often said wrongly that nothing is impossible, I know for a fact that it is absolutely impossible for an ordinary man to remain silent when a lady invites him with so much charm to speak, and assures him at the same time that her lady friends are accepting gracefully the painful duty of listening.

Before admitting the necessity of reducing our infant death rate, it is important to consider whether it can be further reduced. Fortunately for our national pride, it is gratifying to see the wonderful results obtained in that direction during the last twenty-five years, thanks to the untiring devotedness of all the associations of child welfare, thanks to the co-operation of the clergy and to the moral and financial support of the federal, provincial and municipal authorities, with the more and more efficient co-operation of a more interested population.

Alas! years ago, when my enthusiasm and my youthfulness were on a par, I had enough temerity to take, for two consecutive years, a "mournful walk through our Quebec cemeteries," to find out that our infant death rate in the good and peaceful city of Quebec was then 250 per 1,000 births. That rate has gradually been reduced to 140 per 1,000 living new-born, in 1929, thanks to the energetic and persevering work that has been done, specially to the work that has been directed by your able treasurer who consented to undertake a task much more difficult than that of looking after your funds.

For our province, generally, the same gradual reduction has taken place, especially during the last decade, our infant death rate having been 120 per 1,000 living new-born, in 1929, with a corresponding reduction in our general death rate to 13.8 per 1,000 of population.

*Read at the Annual Meeting, Canadian Council on Child and Family Welfare, Quebec, Feb. 23rd, 1931.

If such results, though relative, are made possible; if we are permitted to notice every day the rapid progress made by our different organizations intended to preserve life and to improve health, we have to take into account and to thank the authors of our work because they understood it already. There is no question here of a compliment that could be considered more or less servile by certain parties, it is a question of giving credit where credit is due; of giving the full truth, even at the risk of wounding someone's susceptibility. Those who are interested in the public health of our province know very well that their efforts would have been more or less sterile without the clear vision, the wise direction and the moral backing of two patriots whose names we need not mention, you all know them, the Hon. Prime Minister, Mr. Taschereau, and the Hon. Provincial Secretary, Mr. David.

Turning now to the general vital statistics for the whole of our country, one can realize the progress made and the possibilities of improvement. As the results from our province have been included in the federal statistics from the first of January, 1926, only, and the figures for 1930 are not yet available, we will take into consideration the figures for the years 1926, 1927, 1928 and 1929.

During that period, our devoted Canadian mothers have given to the country, more or less thankful, 938,610 children, figures that would be still more impressive, if, through proper measures, we could have added to those figures a reasonable number of the 29,562 still-born during the same period. It is to be noted that our province accounted for more than 35 per cent of the births, while its increase in population was only 27 per cent of the total population.

We leave it to you to decide if this method of immigration through the cradle is preferable to the other and if this is not the best means of increasing the population. Which do you prefer? The increase through the mother or the increase through the ports? Personally, with other colleagues, for twenty-two years, I was in charge of the medical examination of immigrants at the port of Quebec, and I am in a position to state, without fear of contradiction, that thousands of people, physically or mentally diseased, were admitted against our recommendations, and later fell back on public assistance or helped to fill our lunatic asylums. The millions of dollars spent to attain those results would have been much more usefully expended had they contributed to reduce our general death rate and more particularly our infant and our maternal death rate. But one must not forget that our ports have always been more or less infected by one giant microbe, the *Bacillus politicosus*, well looked after by transportation companies.

That influx, more or less desirable, of immigrants having been stopped for the present, for special reasons, it would seem desirable to direct our efforts towards the preservation of the life of our little Canadians and to practise the old Anglo-Saxon saying: "What we have, we hold."

Turning again to our vital statistics for the period 1926 to 1929, we

find that out of 938,610 living new-born, we have lost 88,554 infants before the end of their first year, that is, nearly 95 out of 1,000 births. This represents more than 60 deaths a day, without taking into account the still-born. To this massacre of the innocents must be added that of the mothers and it must not be forgotten that 5,285 represent the number of our Canadian mothers who died from puerperal causes during the same period. Our province, it must be noted, accounts only for 1,704 deaths out of that total of 5,285, or an average of five per 1,000 living new-born, a really too high figure but which compares favorably with that of other provinces. If we take into account our birth rate, still relatively high,—it is over 30 per 1,000 of population, while that of the other provinces is under 25,—it seems logical to conclude that the number of children born from a mother has not on the death rate from puerperal causes all the influence claimed by some.

From those few considerations, we must conclude that we have made real progress, especially during the last few years, since our infant birth rate in the province of Quebec has dropped from 142 to 120 per 1,000 living new-born from 1926 to 1929; therefore, in 1930, we have saved at least 1,750 children who would not have attained the age of one year had the rate of 1926 been maintained.

Were I allowed to hurt your most intimate feelings in fixing the value of a little "home made" Canadian at the sum of $2,000 only, that would represent a total of $3,500,000; therefore the public funds spent to bring about that result is an excellent national investment.

The infant death rate for the other provinces being much lower than ours, the reduction has not been as great during the same period of four years, but nevertheless there is an improvement and we must, by the way, congratulate our good friends from Ontario who have succeeded in lowering their rate to 76 per 1,000 living new-born.

Were we to improve our present organization, to multiply our county sanitary units and, especially, would our Prime Minister consent to keep the key of our safe instead of passing it to a real Scotchman, it would no doubt be possible, in the near future, to reduce our infant death rate to something like 75 per 1,000 living new-born, so that the yearly number of deaths between the age of 0 and 1 year would not go over 6,000 instead of reaching 10,000 as is now the case. We would be contributing to a great national cause, could we reduce the general rate for all Canada which stands at 92 to-day when it should not go over 70.

In conclusion, allow me to sum up the past and present situation and to lay before you our hopes by saying that we, the hygienists who have made the vow of poverty and devoted our life to the promotion of public health, we have for too long a time been a part of the suffering Church. Now that we have been admitted into the militant Church, we wish to advance as fast as possible towards the triumphant Church where life will not be sacrificed needlessly, where sickness will be reduced to its minimum and where premature death will be unknown.

The Treatment of Syphilis*

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THIS brief summary is given with the object of comparing the effect on the Wassermann test of two methods of treatment, and of describing the methods used for the prevention and care of complications arising from such treatments.

At the time of Col. Harrison's visit to Toronto, during March, 1929, we discussed with him the difficulty of bringing about a persistently negative Wassermann in the majority of syphilitic patients. He recommended a method of treatment which is used in his clinic at St. Thomas's Hospital, London, England. We have used it since that time, and, I think, with rather better results than we had formerly.

Twenty-nine patients were treated by the course formerly used at the Toronto General Hospital, Special Treatment Clinic (Table No. 1), and twenty-nine were treated by the Harrison Course (Table No. 2).

TABLE I

Standard Course

(As used formerly at the Special Treatment Clinic, Toronto General Hospital)

1st week	.6 Neoarsphenamine (Neodiarsenol)	Van den Bergh
2nd week	.6 "	
3rd week	.75 "	
4th week	.75 "	
5th week	.9 "	Van den Bergh
6th week	.9 "	
7th week	.9 "	
	Followed by Hgsal intramuscularly	
1st week	.1 gm.	Van den Bergh
2nd week	.1 "	
3rd week	.1 "	
4th week	.1 "	
5th week	.1 "	
6th week	.1 "	
7th week	.1 "	Van den Bergh
8th week	.1 "	
9th week	.1 "	
10th week	.1 "	Van den Bergh

Class A received—One course, one month's rest followed by half course; *Class B*—Two courses, with rest period of one month between the two courses; *Class C*—Three courses.

*Read before the Academy of Medicine, Section of Preventive Medicine and Hygiene, November 27th, 1930.

As a basis for treatment, patients are divided into four classes:
Class A—Those having a positive dark field but negative Wassermann.
Class B—Those having a positive dark field and positive Wassermann.
Class C—Those showing a rash and positive Wassermann.
Class D—All patients occurring after the *Class C* stage.

At first sight the Harrison treatment appears to be somewhat intensive, but this is counteracted by periods of rest not given in our earlier course.

In the Harrison treatment, bismuth is used in place of mercury for the intramuscular injection; not that it is a better drug than mercury, but it causes less pain. The chief obstacle in bringing about a cure in the early case is the irregularity of attendance for treatment, and one of the reasons for this is the discomfort caused by the hip injections. We have found that bismuth, though painful in many cases, is not so severe as mercury.

We cannot say that the patients showing a negative Wassermann reaction are cured. We know from experience that a six months' period is too short an interval for the estimation of cure. We do know, however, that the Harrison course of treatment has brought about a negative Wassermann reaction more quickly than our earlier treatment.

It is well known that complications occasionally arise during the course of treatment. Certain precautions must be taken. Before beginning treatment, the patient is given a general physical examination, and is instructed to eat an extra amount of sugar or candy the day before each treatment. The patient is also advised not to eat a heavy meal less than three or four hours before or following the treatment. Carbohydrate is given the day before in order to increase the

TABLE II
HARRISON TREATMENT

Day	Intravenous	Intramuscular
1	0.45 gms. Neoarsphenamine	4 grs. bismuth hydrate (Van den Bergh)
8	0.45 (Neodiarsenol)	4
15	0.45	4
22	Rest	Rest
29	0.6	4
36	0.6	4
43	Rest	Rest Van den Bergh
50	0.75	4
57	0.75	4
64	Saturated solution of potassium iodide mx.t.i.d	Rest
71	" " " "	Rest
78	0.75	4
85	0.75	4
92	0.75	4 Van den Bergh

Class A received—Two courses, allowing 6-8 weeks between courses; *Class B*—Two courses+the last half of course, or three courses; *Class C*—Three courses.

TABLE III

COMPARISON OF WASSERMANN FINDINGS IN FIFTY-EIGHT CASES, TWENTY-NINE TREATED BY STANDARD COURSE AND TWENTY-NINE BY HARRISON METHOD

Class	No. of patients Harrison Course	No. of patients Former Course	Wass. Results Harrison Course		Wass. Results Former Course	
			Neg.	Pos.	Neg.	Pos.
Class A. i.e. dark field Pos. Wass.Neg.....	6	6	5	1	3	3
Class B. i.e. dark field Pos. Wass. Pos.....	15	15	14	1	7	8
Class C. i.e. rash or secondary stage, Wass. Pos...	8	8	6	2	3	5

Wassermann results are those taken six months after beginning treatment.

Average number of treatments (in courses), 1½.

Of 29 patients treated by Harrison's Course, 86 per cent were negative six months after beginning treatment.

Of 29 patients treated by former course, 44 per cent were negative six months after beginning treatment.

store of glycogen in the liver. There is then less danger of liver damage from the arsenic. If food is taken just before or just after a treatment, nausea or vomiting is likely to follow.

In order to detect liver damage and arsenical jaundice early, Doctor Walter Campbell* has utilized the Van den Bergh test. Blood is drawn off as for a Wassermann test and the bile content of the specimen is estimated in units. A normal reading varies from 0.5 units to 0.8 units. A reading of from 1 unit to 2.5 units is taken as a danger sign, and rest is ordered or further treatment is carefully checked by weekly tests. Definite jaundice occurs with a reading of 4 units.

In the event of jaundice developing, antisyphilitic treatment is discontinued, the patient is put to bed, a diet high in carbohydrates, low in protein and low in fat, is ordered, and sodium thiosulphate is given. We give one gram of sodium thiosulphate three times a day by mouth and one gram intravenously daily for ten days or longer.

Similar treatment is given for arsenical dermatitis with the additional use of olive oil inunctions to the skin. Treatment with sodium thiosulphate does not seem to be so useful in dermatitis.

In conclusion, we would say that the greatest difficulty with which the physician must contend is irregular attendance. Attendance must be stressed at the time of the patient's first visit and repeatedly throughout the course. Frequent observation is necessary both for thorough treatment and for the detection of signs and symptoms which may lead to serious complications, viz., liver damage and arsenical dermatitis.

*Dixon, H. A., Campbell, W. R. and Hanna, M. I. *The Control of Arsphenamine Treatment by Liver Function Tests.* 1926. *Canad. M. A. J., v. XVI, pp.* 551-554.

Psittacosis*

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A LITTLE over a year ago both the public and the medical profession were stirred by press dispatches concerning a wide outbreak of parrot disease both in Europe and in particular in the eastern United States, accompanied by reports of fatal cases of infection among human beings, with the added possibility of the disease appearing and spreading in Canada. Coincidentally with these dispatches numerous papers began to appear in medical and scientific journals dealing with observed outbreaks and particularly with new facts concerned with the etiology of the disease. So widely scattered are these articles in the literature and to the average reader so difficult to obtain that the writer believed it would be of some value to assemble, even in a somewhat concentrated form, the chief outstanding features of recent research, together with a list of the more important contributions on the subject appearing in the literature.

Psittacosis is primarily an infectious disease of tropical birds of the parrot family, the name being derived from the Greek, *psittakos*, a parrot. The characteristic features are ruffled feathers, loss of appetite, weakness, and enteritis accompanied by diarrhoea. It is transferable readily to man, with an incubation period of about 6-15 days, and characterized by chills, fever, occipital headache with at times delirium, anorexia, coated tongue, broncho-pneumonia, usually constipation, but sometimes diarrhoea, and occasionally nephritis. A mortality rate as high as 30 per cent may occur.

ETIOLOGY.—In 1893, Nocard, investigating this disease, isolated a bacillus which he called *B. psittacosis*, believing that it was the sole cause of the disease, inasmuch as injections of it into parrots and other birds caused all the characteristics of the original disease. This organism belongs to the *Salmonella* group, and serologically it is probably identical to *B. aertrycke*. In a study of Nocard's *Salmonella psittacosis* undertaken by de Assis (1930), he confirmed all of Nocard's observations in regard to the pathogenicity of this organism for parrots, parakeets and pigeons. He further stated that culturally it was akin to *Sal. suipestifer*, and that while it could be agglutinated by antisera of *S. enteritidis* an *S. schottmuelleri*, yet by absorption tests *S. psittacosis* had a specificity all its own. The complement fixation test proved its very close relationship to *S. suipestifer* and *S. schottmuelleri*. It was also found to be highly pathogenic for rabbits, guinea pigs and white rats. However, in the 1929-30 outbreak, McCoy and Branham report its entire absence in twelve infected birds, confirming the statements of Krumwiede, Bedson and several others. Sturdee and Scott of London,

*Presented at the Annual Meeting, Canadian Public Health Assoc., Regina, June, 1931.

in their admirable monograph, show that agglutination tests made on *B. typhosus, paratyphosus A and B*, and on 14 strains of the *Salmonella* group, with blood from 39 human cases, gave negative results in dilutions above 1:80, and that blood cultures in eight cases were entirely negative.

Until the outbreak of psittacosis in the latter part of 1929 and early months of 1930 in Europe and the Americas, this organism of Nocard was still regarded as the etiological agent of the disease, but careful bacteriological investigation in this epidemic proved conclusively that Nocard's bacillus was not to be found in either infected parrots or human beings. This condition in the absence of any cultivable micro-organism, at once led to the search for a possible filter-passing virus as the cause of the disease. The first positive report of this nature was made early in 1930 by Bedson, Western and Simpson of London, England, followed in a few weeks by publication of an independent investigation by Krumwiede, McGrath and Oldenbusch of the Research Laboratories of the City of New York, later on in the year by several German observers, and since then confirmed by numerous workers in Europe and America.

This filter-passing virus is to be found in the circulating blood and in the organs of both parrots and human beings, and in the sputum of the latter, concurrent with the development of broncho-pneumonic symptoms. It is nearly always present in the faeces of sick parrots. In this connection it is interesting to note, as pointed out by Tieschner, that in 1906, Stuzze made the first suggestion that probably psittacosis might be caused by a filterable virus, such as had been established in the case of fowl pest; until now this suggestion of Stuzze's had been overlooked or forgotten.

NATURE OF THE VIRUS.—Levinthal, but more particularly Lillie (1930), have described in the endothelial cells of the pulmonary alveoli and in the Kupfer cells of the liver, in birds and man, very small coccoid organisms, or blunt, bipolar-staining, bacillary bodies about 0.2-0.3μ in size, resembling Rickettsia-bodies. Lillie suggests that they may be such, and proposes for them the name *Rickettsia psittaci*.

Similar bodies have also been described by Coles, who, upon staining smears with infected tissues with Giemsa's stain found them without difficulty. He likewise confirmed the earlier observations of Levinthal, by demonstrating these bodies in the filtrates of emulsions of infected organs, after having passed the emulsion through Seitz filters followed by centrifugation. Upon comparison of these stained preparations with those made from a case of typhus fever, he was struck by the similarity of them to *Rickettsia prowaczeki*.

PATHOGENICITY OF THE VIRUS.—Apart from members of the parrot family, canaries occasionally contract the disease, also Java sparrows and "budgerigars." Krumwiede and his associates showed that the mouse is quite susceptible and can be used as a test animal, particularly in establishing diagnosis in human cases, using the blood or sputum,

and the virus apparently becomes exalted in virulence by passage. The guinea pig has a high resistance to the virus, but as Bedson and Western have shown, it definitely shows a local infection when the shaven skin has rubbed into it virus-holding material; direct inoculation of virus material into the testicle, with passage, increases the virulence for these animals, but rarely kills. Rivers and Berry have also demonstrated that rabbits and guinea pigs can be infected by intracerebral inoculation and that the monkey (*M. rhesus*) is readily infected by intranasal or intratracheal injection of virus-containing substances.

PATHOLOGICAL DATA.—In *parrots*, the liver and spleen are found to be considerably enlarged, the former frequently showing signs of fatty degeneration and small areas of focal necrosis. Under the microscope the liver tissue is seen to be swollen and showing evidence of parenchymatous degeneration, at times associated with fatty metamorphosis. The areas of focal necrosis show cells in all stages of necrosis and the areas are oxyphil in character. Kupfer cells are swollen, vacuolated and contain yellow-brown pigment with occasional clumps of minute cocci or bipolar staining short rods. The spleen shows changes in its general normal architecture, its lymphoid follicles being all but obliterated and its sinuses filled with blood; the entire organ is filled by wandering phagocytic cells often vacuolated or containing fat or amorphous matter. The intestinal tract shows desquamated epithelium and some swelling of the lymphoid follicles. Myocarditis is a notable feature in some instances. The kidneys may show signs of acute nephritis. The lungs show scarcely any changes, only here and there collections of monocytes and fibroblasts.

In *man*, the lung as described by Lillie, exhibits pneumonic areas, filled with exudate, composed largely of fat-laden large mononuclear cells derived from the alveolar lining, as well as areas of small monocyte accumulation. These large cells contained masses of minute cocci and bipolar staining small rods (*Rickettsia psittaci*). Similar appearances have been described by Hutchison *et al* and by Rivers *et al*, as occuring in the organs of human and experimental animals respectively.

LABORATORY DIAGNOSIS.—As first demonstrated by Krumwiede and his associates, white mice can readily contract the disease upon injecting them with infectious material, and this circumstance has been recognized by Bedson, Rivers and their co-workers, the latter particularly recommending the intraperitoneal injection of either filtered emulsions of organs, faeces, or in the case of humans, sputum. Rivers and his associates also for diagnostic purposes recommend the intracerebral injection of either rabbits or guinea pigs with emulsions of organs of infected birds, with or without previous filtration.

In making a diagnosis in the case of infected birds, Bedson emphasizes the necessity of ruling out fowl plague, which is caused likewise by a filterable virus. This can be readily done, he states, by injecting white mice which are susceptible to psittacosis but not to fowl plague.

IMMUNITY.—An attack of the disease as tested on birds and mice confers protection in them to a certain degree, as determined experimentally by Bedson and Western; using convalescent serum, they did not find that it afforded any protection. Rivers and his associates also obtained negative results in mice with convalescent serum, but thought that with rabbits there was some mild evidence of protection. In any event convalescent serum is apparently possessed of a low degree of therapeutic efficacy.

Peterson, Spalding and Wildman reported having used convalescent serum in doses of 50-100 cc. daily on six cases with no deaths. It was interesting to note, however, that one case of psittacosis, not having received serum, died. However, the writers were not wholly convinced that this treatment was the actual cause of saving the lives of those to whom it was given, realizing that a larger number of cases would have to be studied before coming to any definite conclusion.

The virus when inactivated by formaldehyde has been shown by Bedson and Western to protect mice against heavy doses of active virus. It would seem from the experiments of Bedson and Western that all strains of psittacosis virus are identical.

EPIDEMIOLOGY.—Armstrong states that although reports of psittacosis were reported in the United States in 1904, 1906, 1025 and 1927, by far the most serious was that of 1929-30, in which 167 cases were identified. In nearly all of these the disease was contracted through being either in close contact with infected birds, or in the handling of them. Even in laboratories during conduction of studies on this disease, not a few cases of infection have been reported. Most interesting of these is that reported by McCoy; in an outbreak in the Hygienic Laboratory at Washington, eight persons in no wise connected with the experimental work contracted the disease, but by what paths of infection remained unknown. Armstrong reports two cases of the disease contracted from persons already ill with the disease; this mode of infection is quite uncommon. Passage from sick persons to those waiting upon them has also been reported by others. In such instances the infection is either passed by droplet infection during coughing, or by contamination of the hands by carelessly handled sputum.

It must not be overlooked, as Bedson and his co-workers pointed out that a carrier stage can exist amongst parrots which have recovered from the disease.

In Canada, an outbreak in Burnaby and another in Victoria have been reported by Dr. A. R. Chisholm, Provincial Epidemiologist, in which nine persons were involved. There were no deaths among infected persons.

In all, over 600 cases of psittacosis have been reported from Europe and both the Americas in 1929-30.

One epidemiological phase of this disease seems to me to have not received the prominence it is entitled to, although Bedson in passing mentions the possibility of it. If this disease be caused by *Rickettsia*,

for which some evidence has been submitted, then it is strange, in reference to human infection particularly, that no work has been carried out to determine what rôle, if any, bird-lice or other ectoparasites play in the spread of the disease. It may be quite possible that such a causative factor played a part in the strange epidemic in the Hygienic Laboratory in Washington; in any event, it would appear a worthy topic for future investigation.

CONTROL MEASURES.—Naturally, in seeking to control an epidemic of this nature, as Ellicott and Halliday have pointed out, there must be put a strict embargo on importation of all parrots and related species. This must be followed up by locating the centres which already exist in pet shops, with prohibition of sale and isolation of all birds in them. In addition it might be added, measures designed looking towards the destruction of all sick birds, careful destruction of all excreta from cages of birds under isolation, as well as active measures for the delousing of the birds and of their cages should be coincidentally put in force.

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Some Aspects of the Outbreak of Psittacosis in Burnaby, B.C.*

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As far as I am aware, the only recorded outbreak of psittacosis in Canada occurred in British Columbia in April, 1930. An account of this by Dr. Chisholm, Provincial Epidemiologist, was reported in the CANADIAN PUBLIC HEALTH JOURNAL of July, 1930. There were, however, several circumstances connected therewith, which it might be well to place on record to complete the account, for reference purposes in case the disease should appear again in Canada, a quite possible event as the United States Public Health service has a record of 74 foci of infection comprising 169 cases with 33 deaths, nearly 20 per cent fatality, between Nov. 23, 1929, and May 7, 1930; also 16 laboratory cases with two deaths and 12 other probable cases,—a total of 197 cases. To add our nine cases brings the number to 206 in the United States and Canada during that period.

On April 28th, 1930, Dr. George Wilson of New Westminster, telephoned that he had three patients in one family in New Westminster who were ill with what was suggestive of "parrot fever," as they had received four parakeets from Burnaby, one of which died. He gave me the name and address of the party supplying the parakeets. This was at about 5 p.m. Between that and 11 p.m., I visited the party named and found the man who had secured most of the birds from the SS. Tyndareus of the Blue Funnel Line. He was ill. I studied him and his illness, satisfied myself that he had psittacosis, obtained a list of the places where he had sold the birds, located the 28 birds (in groups of 2 and 4), confirmed, to my own satisfaction, the diagnosis of psittacosis in three other persons in Burnaby and two more in New Westminster who had been exposed to the parakeets in the home of the party above mentioned, who was ill, and who had purchased the birds, one of which had taken ill. In addition, that evening the parakeets were all destroyed and the outbreak reported by telegram to Dr. H. E. Young, the Provincial Health Officer at Victoria.

As it was felt that the birds were a menace, but that there might be some doubt as to the power to order their destruction, the alternative was given to the owners between quarantine of themselves and destruction of the birds. They were all destroyed, taking due precautions against infection from contact. As described later, this proved to be of service, as one of the parties was very much annoyed, and as a result supplied me with valuable information. Cases spreading from man

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to man were reported as rare, so no quarantine was placed on cases or contacts.

As Dr. Chisholm, in the report above cited, has given a clinical description of most of the cases, it is unnecessary to repeat other than to give later on, the basis upon which a diagnosis was made. In all, 28 parakeets were brought into Burnaby, four of which were sold into New Westminster. Of these, five birds became ill, three of which died. Nine persons became ill in seven homes. All of the nine were exposed to birds that were ill.

In every home where a bird became ill, one individual or more contracted the disease. In no home where there were birds which did not become ill, was any illness found in persons. There were no deaths among the nine cases of illness, though three were hospitalized. Of these three, two were seriously ill, one with almost fatal results. After a study of the cases and the literature, I have no doubt of the diagnosis as based on the following summary:

1. *Exposure.*—Each of the nine cases had definite contact with a parakeet that was ill.

In each of the five houses where a bird showed disease, from one to three persons having had contact became ill.

In each of the five houses where there were birds, none of which showed any disease, no person, became ill.

2. *Definite incubation period for the birds.*—The birds took ill six to eight days after leaving the warm quarters of the steamer's hold. (Research workers in the laboratories of the National Institute of Health, Washington, surmise that some birds brought from the tropics may be carriers and have their resistance to psittacosis lowered on exposure to conditions on arrival in a temperate zone, with onset of the disease as a result.)

3. *Definite incubation period for man.*—After exposure to a parakeet that was ill, there was an interval of nine to sixteen days before onset of acute illness, with an average of eleven days.

4. *Man to man infection.*—In conformity with the observations of those who have studied this disease, there was little evidence in this outbreak of its spread from person to person, as all cases had had direct contact with a bird that was ill, except one, the fiancé of a young lady, who had called, with the young lady, at No. 1 home, as referred to above, the young lady having contact with the bird. They both took ill after the usual incubation period.

5. *Symptoms.*—These were in conformity with those reported by other observers as follows:—Onset was usually sudden with chilly sensations, pains or soreness over parts of the body; headaches, mostly frontal, fever, disturbances in the intestinal tract; some had epistaxis, unproductive cough (one had slight hemorrhagic sputum), high temperature, relatively slow pulse, and respiration rate not high.

6. *Clinical signs.*—Progressive indication of lung consolidation, yet with noted relatively low respiration rate and little or no sputum.

7. The *pneumonia* was different from the usual varieties from the points of view of epidemiology, clinical findings, X-ray findings and suggested pathological picture, to which is added association with newly acquired birds from the tropics, birds that became ill.

8. *Laboratory findings.—Urine*—negative findings; *blood**—white blood count, normal or showing leucopenia; agglutination negative with typhoid, paratyphoid, and abortus organisms; *sputum*—negative for suggestive organisms. (Most authorities now agree that psittacosis is due to a filterable virus.)

9. *X-ray*—positive, showing lung consolidation.

10. *Duration of illness.*—This lasted from 7 to 24 days with an average of 16 days. In the three hospital cases the convalescence was slow.

Explanation of how the epidemic was possible.

The enquiry elicited certain features, giving some ground for doubt as to the diagnosis of psittacosis. What were they?

1. The Blue Funnel Liner Tyndareus came direct from the Orient. The existence of psittacosis in the Orient had not been reported as far as one could learn.

2. The incubation period of the disease is apparently short, observations indicating it to be from six to fifteen days. If there had been psittacosis amongst the birds imported, some or all would have been expected to have become ill on board ship, as the length of the journey after receiving the birds exceeded the length of the incubation period. There was no evidence of this.

3. Some 112 birds shown on the ship's books were distributed in and about Vancouver. Not one of these birds had taken ill, as far as enquiry revealed.

4. The steamer arrived on or about March 28th. The cases of illness occurred between April 16th and 19th, the birds having become ill in the interval (April 3 and 4). How could those dates, then, be reconciled with the above facts?

5. Of the 28 birds received in Burnaby, only five contracted disease, three of which died. Why such a low percentage? Why did so many escape infection?

6. Nine days elapsed between the time of illness in humans and the time when the matter came to the attention of the Medical Health Officer. This is not surprising as there was only one case in each of four houses, two outside contacts of one of these cases, and three cases in the seventh house; it was these multiple cases in one house combined with

**It is of interest to note findings in the laboratories of the National Institute of Health at Washington, D.C., that the blood of a man recovered from psittacosis afforded no protection to birds inoculated with droppings and tissues from other infected birds.*

the death of a bird in that home, that, after ten days' interval, suggested the diagnosis to the physician in attendance, who then telephoned me.

7. The first one to contract the disease was the man who secured the birds from the steamer. He was under his wife's care. She was a trained nurse, who thought at first her husband had influenza, and later typhoid fever. No doctor saw him till I called on the 28th of April. The second case was a man who had been an invalid with cardiac disease, attending the outdoor department of the Vancouver General Hospital. On becoming acutely ill he was sent to the Vancouver General Hospital where a diagnosis of pneumonia was made. The other four cases had no medical attention, and the usual diagnosis was made—"flu"!

The next day I learned from the irate owner of some of the destroyed birds, the following facts:—Of the 28 birds coming into Burnaby, he had secured four, the other 24 going to his friend above mentioned, who had sold 21 of these. This irate gentleman, who had been ill himself, claimed it was not "parrot fever" at all, but only "flu." He stated that in the whole shipment of birds from the Orient there had been no illness and no death on the whole voyage; that the group that he and his friend had brought into Burnaby were smuggled and were purchased from the sailor that smuggled them. He further added that on the previous voyage of the Tyndareus from South America there had been a smuggled shipment of 200 birds, all of which had died, but that this shipment was all right.

This supplied me with the information which gave a possible explanation of my difficulties, as follows:—

1. No psittacosis was reported in the Orient, but it was well known to be present in South America.

2. All of a smuggled shipment of 200 birds from South America died; the birds having been secreted, the steamer had no official record of them.

3. Laboratory findings in Washington, D.C., and elsewhere had recently proved that droppings of infected birds are capable of conveying the infection from birds to man and bird. The cause of the disease is now proved to be due to a filterable virus and not to Bacillus psittacosis (Nocard), now known as Bacillus aertrycke B.

4. The birds secreted on the previous passage probably infected the hidden corner of the steamer with droppings.

5. An interval of time might attenuate the virus in the droppings but could leave them still infective. The virus has remained active for weeks in 50 per cent. glycerine subjected to low temperatures.

6. The Vancouver shipment of birds from the Orient was regularly billed and not hidden away, and was therefore not exposed to infection.

7. The Burnaby birds were smuggled, therefore hidden probably in the same hole or corner as the infected lot from South America.

8. On the voyage from Asia some of the Burnaby birds were thus

probably exposed to infected droppings from the previous voyage from South America.

9. The virus thus attenuated might lengthen the incubation period and take a smaller percentage of toll in illness and deaths of birds exposed.

10. Birds infected on the voyage over, would develop the disease after arrival here.

11. On distribution, the Burnaby birds were mixed or re-sorted from former groups or cages.

12. One infected cage of say five birds may have been thus scattered into five homes. It is, however, well known that not all birds exposed to infection succumb thereto.

13. Only one bird in each of five homes took ill and only three died.

14. No further cases developed because the rest were destroyed before the expiry of the incubation period, or they had possibly developed immunity from a former attack, or had received a non-fatal dose, or, carrying the virus, had not been rendered susceptible by change of temperature and climate sufficient to lower their resistance.

TABLE I

DISTRIBUTION OF CASES AND BIRDS BY MUNICIPALITY

	No. of birds	Birds ill	Birds died	Persons ill	Place of exposure of cases
Burnaby	24	4	2	4	6
New Westminster	4	1	1	3—2 Contacts in Burnaby	3
Total	28	5	3	9	9

Embargo on Importation

Representations were made to the Provincial Health Officer and thence to the Federal authority, to place an embargo on the importation of parrots and parakeets from the Orient to B.C. ports. Within a week federal officials reported that this had been done. A Vancouver importer of birds from the Orient came to me later, complaining of the restriction of legitimate trade as there was no known parrot fever in Asiatic ports. Taking into consideration the facts outlined above, I decided that there could be little or no risk in lifting the embargo, provided the authorities at the quarantine station made due enquiry regarding shipment of birds as to illness or death, and provided fumigation was required in the latter event. The only chance seemed to be a combination of circumstances as outlined above, which would be one chance in very many. Consequently I wrote to Dr. Young, the Provincial Health Officer, calling attention to these points with a recommendation to advise Ottawa to have the embargo lifted, if he and the authorities in Ottawa were satisfied in this regard.

The embargo was lifted in due course. One feels that with due

TABLE II

DISTRIBUTION OF CASES AND BIRDS BY HOMES

Home	Birds	Birds ill	Birds died	Persons ill	Outside Contacts ill	Total ill
Home No. 1.....	3	1	0	1	2	3
" " 2.....	3	1	1	1	.	1
" " 3.....	2	1	0	1	–	1
" " 4.....	4	1	1	1	.	1
" " 5.....	4	1	1	3	.	3
	16	5	3	7	2	9
" " 6.....	2	0		0		
" " 7.....	2	0		0		
" " 8.....	4	0		0		
" " 9.....	2	0		0		
" " 10.....	2	0		0		
	28					

Date of distribution of birds, March 28th to April 3rd, 1930.
Birds took ill, April 3rd and 4th.
Patients took ill, April 12th to 19th.
Patients' incubation period from 9 to 16 days—average 11 days.
Patients' length of illness, 7 to 24 days; average, 16 days.

precautions and the details of this outbreak in mind, the chance of further introduction of psittacosis through this port is very limited, unless it be indirectly through the United States.

In this connection, Dr. Ridewood of Victoria had reported a possible case of psittacosis on March 29th, 1930, where the patient had contact with two parakeets imported from California, one of which birds died.

RECENT LITERATURE ON PSITTACOSIS

1. Filterability of the infective agent of psittacosis in birds. U.S. Pub. Health Rep., 1930, Vo. 45, p. 725.

2. Rickettsia-like inclusions in man and in experimental animals. U.S. Pub. Health Rep., Apr. 11, 1930, Vol. 45, p. 773.

3. Accidental psittacosis infection among the personnel of the Hygienic Laboratory. U.S. Pub. Health Rep., Apr. 18, 1930. Vol. 45, p. 843.

4. Observations on etiology of psittacosis. Lancet (1930), Vol. 218, p. 235.

5. Editorial *re* psittacosis. Can. Pub. Health J., May, 1930. Vol. 21.

6. Psittacosis outbreak in a department store, N.Y. U.S. Pub. Health Rep., June 20, 1930. Vol. 45, No. 25, p. 1403.

7. Outbreak in Canada. (Burnaby, B.C.) C.P.H.J., July, 1930. Vol. 21, p. 320.

8. Epidemiology of the 1929-1930 outbreak of psittacosis. U.S. Pub. Health Rep., Aug. 29, 1930. Vol. 45, p. 2013. (Vide. p. 2022 for further references.)

9. B. Psittacosis (Nocard) not found in recent epidemic. U.S. Pub. Health Rep., Sept. 12, 1930. Vol. 45, p. 2153. (Vide p. 2160 for further references.)

10. The Etiology of psittacosis. J. Roy. San. Inst., Vol. 51, Jan., 1931, p. 339.

11. Two cases of psittacosis—idem page 346—Thierens.

12. Outbreak of infection from love-birds. U.S. Pub. Health Rep., Feb. 27, 1931, Vol. 26, p. 480.

13. The psittacosis outbreak in Maryland, winter of 1929-1930. U.S. Pub. Health Rep., Apr. 10, 1931. Vol. 46, p. 843.

MEMORANDUM RE PSITTACOSIS

As an item of interest it might be mentioned that the following information was supplied me by our rooming house inspector in Vancouver, Sgt.-Major Joseph Hynes.

While serving in Barcille, in the Oude and Rohilkond District of the North West Provinces of India in March, 1892, when Lord Roberts was Commander-in-Chief, the South Wales Borderers, the Munster Fusileers and three battalions of the Rifle Brigade suffered from a strange malady.

At its height, men were dying at the rate of four, five and six a day, and on investigation of the epidemic, many dead parrots and ortolan pigeons were found. The men were camped in a mango orchard or "tote." Both man and bird partook of the mango fruit. Inspector Hynes said there were 100 or 150 cases amongst the soldiers with a heavy death rate.

The sickness was called "parrot fever."

A Case of Tularemia

J. B. CRAMER, M.D.
Woodville, Ont.

THE following notes are taken from the case history of a man, aged 29, a baker by trade, who reported at my office on July 7th, 1931.

Complaint: Headache, cough, upper abdominal pain and tenderness, with sensation of constriction at the area of pain.

Present illness: Patient had always been robust and only on the day before consultation had he not felt well.

Four days previous to being unwell, he returned from a cottage on the lake near Bancroft, Ont. Here he had spent 10 days. During this period he handled no animals except a mouse. There were no abrasions on his hands at the time. He was not bitten by insects except mosquitoes. Milk consumed was of the canned variety. Meat eaten was cured bacon. A minor wound was received on the plantar surface of his foot while swimming on June 29. It may be of interest to note that the previous occupants of this cottage were residents of Ohio.

Physical Examination (July 7th):

Temperature, 99.1°F.; pulse, 60; respiration, 22; B.P., 120/65. Erythema of soft palate, tonsils and pharyngeal wall. A few coarse rhonchi were heard over the bronchial area of the chest. The abdomen presented tenderness over both upper quadrants, more marked on the right side.

Progress Notes:

July 9.—Patient in bed, complaining of headache, chills, nausea, constipation, abdominal pain and tenderness, temperature 100°F, pulse 68. No change from previous physical examination.

July 11.—Distention and shortness of breath were troublesome. The right-sided abdominal pain and tenderness extended as far down as McBurney's point, being greatest between this point and the mid-line. Temperature 101°F., pulse 72. The tongue was heavily furred. Erythematous papules covered soft palate and posterior part of hard palate.

Temperature gradually increased until it reached 104.2°F. on the afternoon of July 18, remaining high during the next four days. The lowest point of temperature during 24 hours was 102.2°F. Pulse did not exceed 100. During this period the patient was restless and complained of abdominal distress and dyspnoea. Tenderness extended over the whole abdomen. The spleen could be palpated by the end of the second week.

Temperature began to fall on the 18th day of the disease, reaching normal in three days without subsequent elevation. Shortness of breath and distention disappeared with the fall of temperature. Abdominal tenderness persisted.

Two weeks after temperature had returned to normal, examination of patient showed a loss of 15 lbs. in weight. He was weak and complained of abdominal tenderness below and to the right of the umbilicus.

August 28.—Patient returned to work. There has been a gain of seven pounds. He complained only of slight abdominal distress.

Diagnosis: Agglutination tests were made as follows:

July 11—Negative
" 14—Negative
" 17—Positive 1:20 for B. tularense
" 22—Positive 1:160 for B. tularense
" 29—Positive 1:640 for B. tularense.

B. tularense—absorption test positive.

Conclusion: A case of tularaemia, typhoid type.

Water and Ice Supplies on Common Carriers*

F. M. BRICKENDEN
District Engineer, Western District
and
J. R. MENZIES
District Engineer, Atlantic District
Department of Pensions and National Health, Ottawa

THE safeguarding of the drinking and culinary water and of ice supplies on common carriers engaged in interprovincial and international trade is a responsibility of the Department of National Health.

In 1923, the work, which is now carried on by the Public Health Engineering Branch, was inaugurated by the passing of "Regulations concerning Water for Drinking and Culinary Purposes on Vessels Navigating on the Great Lakes and Inland Waters." The necessity for such action was made apparent by the rapidly increasing number of typhoid fever cases reported as originating on Great Lakes vessels.

The regulations indicated the standard of quality of water deemed satisfactory for drinking and culinary purposes, where water must not be obtained, what equipment would be required to satisfactorily handle drinking and culinary water and the care of such equipment.

It was apparent that the physical examination of vessel water supply systems, to determine whether or not they were equipped as required, although of considerable value in reducing the incidence of typhoid fever, would not serve as a check on the quality of water. This could best be obtained by frequent sampling of water, from the drinking and culinary taps, for bacteriological analysis. The co-operation of the Provincial Department of Health of Ontario was obtained and samples collected by representatives of the Department of National Health were analysed in the Ontario laboratories. Sterilized bottles were sent by the laboratories when requested and prompt reports of the results of the analyses were forwarded to the engineer collecting the samples.

Later an assistant engineer was appointed and was stationed at St. Catharines, Ontario. The occupant of this office was later transferred to Winnipeg, when a new district was opened in Central Canada, and another engineer was appointed to the St. Catharines office.

In March, 1930, "Regulations Concerning Water for Drinking and Culinary Purposes on Common Carriers Engaged in International and

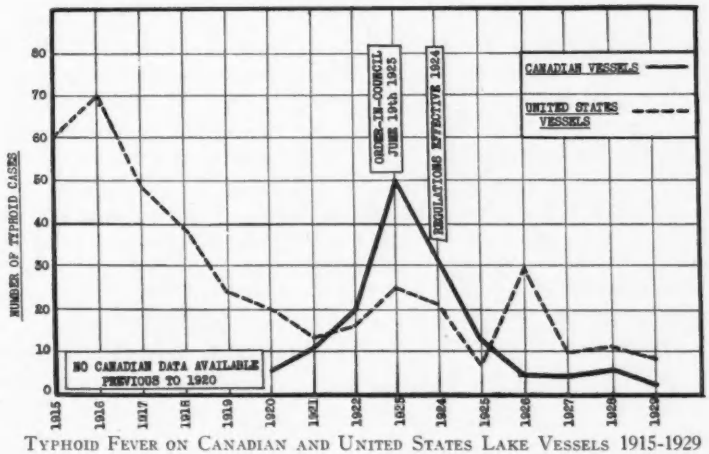
*Presented at the Canadian Public Health Association Annual Meeting, Section of Public Health Engineering, Regina, June, 1931.

Interprovincial Traffic" were approved by Order-in-Council, thus bringing the water supplies of railway trains operating in Canada, as well as of many additional vessels, under the control of the Department of National Health.

Shortly thereafter, the Atlantic District, which extends from Kingston, Ontario, to the Atlantic ocean, was organized and about the same time an assistant to the engineer at Winnipeg was appointed.

The Magnitude of the Problem

Some idea of the magnitude of the problem under consideration is given by the statement that during the season of 1929, the number of passengers carried by the larger steamships and ferries that ply in Canadian ports on the inland waters of Canada was over 23,000,000.



TYPHOID FEVER ON CANADIAN AND UNITED STATES LAKE VESSELS 1915-1929

During the year 1928 the railways in Canada carried over 40,000,000 passengers in addition to the thousands of men who were employed in the maintenance and operation of these railways.

Supervision

Special consideration has been given to the source of water supply of vessels tied up for the winter and fitting out either in the fall or early spring. Carelessness in regard to this matter has been demonstrated definitely on several occasions to have had undesirable results.

In order that the problem may be handled from all sides, it has been customary to carry on an educational campaign in the winter seasons when the navigating officers and engineers are away from the boats. In the mid-winter season lectures on the subject of safe water supplies are given at various centres where students qualify for marine certificates. It has been usual to give notice in advance that these lectures

are open to all persons interested. The lectures consist of a talk on the subject of water supplies in addition to which moving pictures are shown indicating the forms of life that are present in water supplies that have been contaminated by sewage.

Through co-operative arrangement with the United States Public Health Service more accurate information is available regarding vessel movements, water supplies, laboratory analyses and sanitary conditions which is mutually helpful.

It has been possible recently to give more attention to railroad and coachyard sanitation than was possible in previous years. A very distinct attitude of co-operation exists between this department and the railroad systems and an encouraging appreciation of the importance of railroad sanitation has been manifested.

By means of a co-operative arrangement with the Pullman Company and the Canadian railway systems, this department is supplied with lists of all special gatherings and conventions, particular mention being made of those where sleeping cars may be parked for occupancy in lieu of hotel accommodation. Along this line it was possible to accomplish a great deal during the past year both during the convention of the Masonic Shrine at Toronto, and during other conventions in other railway centres such as Montreal, Winnipeg and other cities.

In addition to the physical examination of water supplies for and on common carriers, information and advice of a technical nature and copies of reports concerning water supplies and sanitation are supplied to transporation companies.

Throughout the year transportation companies are supplied regularly with copies of water analysis reports and, whenever it appears advisable, attention of the management of these organizations is drawn to potential public health hazards.

Results

So successful has the method of instruction and supervision been that the majority of drinking-water coolers on trains have separate sections for ice which are in no way connected with the water.

The practice on Canadian vessels, operating on the Great Lakes and inland waters of Canada, is to have the drinking water collected from a safe source and passed through a coil of small pipe in the refrigerator, thus maintaining a constant supply of chilled drinking water which is free from direct contact with ice.

The accompanying graph presents the best evidence of the value to the public of this check on drinking and culinary water supplies on vessels. Thus, for instance, in 1923 when this work was commenced, typhoid fever was so common among seamen and passengers on Great Lakes vessels that fifty cases were reported to the public health author ities in Ontario. The effect that the regulations had on the situation is shown in the sharp drop in the number of cases. By 1924, there were

only 31 cases of typhoid reported to Canadian health authorities. The following season, 1925, the number had fallen still further so that there were only thirteen cases reported. Since that date the number of cases of typhoid fever reported has been very small so that in 1929 only two cases were reported. In other words, the enforcement of these regulations has been decidedly valuable.

As indicative of the amount of work that is being done by the representatives of this office in the field, during the three months' period, August, September and October, 1930, 717 samples were collected for analysis from the drinking and culinary water supplies of passenger trains and in the same period, 1,072 samples were collected for analysis from the drinking and culinary water supplies of steamships navigating on the Great Lakes and St. Lawrence river.

It will be readily seen that the work of the Department in constantly striving for better water supplies on common carriers and Great Lakes vessels must also have an effect on the general health of the people resident in the provinces affected, and more particularly in the realm of water-borne diseases. Through the enforcement of the Public Works Health Act, the health of workmen engaged on government construction work is benefited. It has been possible to assist in the solution of sewage disposal problems in certain eastern provinces. In cases where municipalities have been supplying unsafe water it has been possible to bring pressure to bear which has been of material assistance to the provincial authorities in having the unsatisfactory condition remedied. Field inspections of various kinds are made frequently and the data thus collected are available to provincial health officials on request. The assistance of the engineers of the Department is available to provincial authorities in the solution of special health problems.

It is desired to take advantage of this opportunity to acknowledge the hearty co-operation of the Provincial Departments of Health.

The co-operation of the Quebec Bureau of Health was obtained in the matter of testing water samples and a large proportion of the samples collected in the Atlantic district have been analysed in Provincial laboratories. The laboratories of the Provincial Departments of Health of Nova Scotia and New Brunswick are also available for the analyses of samples of water, collected in those provinces. So, also, in Ontario and in Western Canada, laboratory services have been made available and health officials have given very material assistance.

As the Public Health Engineering Branch of the Department of National Health has only four engineers and one assistant to carry on field work, one can readily realize how limited their efforts would be if the assistance of the various Provincial Departments of Health was not available.

Editorials

STATE MEDICINE

THE so-called socialization of medicine has been discussed more or less seriously for some years by the leaders of organized medicine and has been noted, and, in some instances, commented upon by the rank and file of the profession. Certain western provinces have presumably committed themselves to some form of state assistance to the physician or gratuitous treatment to those of the public in need of such service. The Commission set up for this purpose in British Columbia has brought down certain recommendations which are apparently acceptable to the provincial legislature and to the profession. Alberta and Saskatchewan have, through government operated travelling clinics and municipally paid doctors, attempted to solve what those in high governmental places have felt to be a present medical need. In Quebec and the Maritime Provinces there is, apparently, no present demand by any of the interested agencies for any radical change in the orthodox type of medical service, whereby the interested individual seeks his physician in time of need, and pays him for his services when he is in funds; his inability to pay now or in the near future acting in no way as a deterrent to his seeking his advice.

The number of those needing skilled medical or surgical service, who are indigent, varies according to the economic condition existing at the time, the season of the year and the type of community. Investigators state that the scale of variation is from 10-40 per cent of the total population. This wide fluctuation is influenced by factors noted above, and by the point of view of the investigator as to what indigency actually implies. The fact to be deduced is that there is a definite percentage of the population always unable to pay for adequate medical attention. Two alternatives exist—either the physician shall continue to extend to these people the maximum of service, without expectation of pay, supplemented by the assumption of hospital costs by the municipality and government, when hospitalization is warranted; or the state shall evolve some plan of remunerating the doctor for his services.

In Ontario, much has been said, in certain quarters, as to the close proximity of some form of state medicine. This attitude has been strengthened by the introduction of the subject for discussion in the House of Commons during its last session. From what one can gather, there is no apparent evidence of a demand for such a service from the mass of the profession or the people themselves; nor is it,

apparently, the present intent of the government to initiate any such programme. The attitude of the individual physician is often influenced by a lack of serious consideration of the subject, or by the minimum of contact with the type of patient who is supposedly in need of medical service for which he cannot afford to pay.

The arguments in favour of such a step are that it will insure the potential patient the maximum of medical care, when such care is needed; that it will permit of the physician seeing his patient much earlier in his illness than he often does now; and that it will avoid the necessity of the doctor giving of his time and skill without anticipating any monetary return. All would seem to be good and sufficient reasons.

The opposition state that it smacks of governmental paternalism; that it stultifies the interest of the physician in his patient; that it does not give the patient right of choice of physician, and that it discourages initiative in the younger medical man. One thing can be said in favour of the affirmative side in this controversy, namely, that there is nothing original in the arguments brought forward by their opponents. They have all been voiced in advance of the adoption of such a programme in every civilized country that is, at the moment, carrying on such a service. Apparently they have not yet, at least, worked out to the disadvantage of either the patient or the physician, in the majority of instances where they have been adopted. It would seem to be essential, therefore, that the merit of the arguments advanced be seriously considered in the light of actual experience in countries in whch such a plan exists, and, if not well founded, that they be discarded.

The interest of the serious-minded individual, whether he be physician or politician, is to assure all the public all of the advantages of modern medicine, irrespective of his economic status. It is questionable whether this desirable state of affairs exists to-day. If this end can be accomplished without imposition and hardship by a continuation of the present plan, then there is no need for change; if it cannot, then a change is desirable; but let us, in debate, not lose sight of the essential objective.

J. T. Phair

PUBLIC HEALTH NURSING

RUBY M. SIMPSON, Reg.N., and MRS. GEORGE HANNA.

Reorganization of Public Health Nursing Service in Manitoba

DR. F. W. JACKSON, D.P.H.
Deputy Minister, Department of Health and Public Welfare, Manitoba

ONE of the ideals of the Department of Health and Public Welfare is that every individual, especially every child, should have an equal chance for good health.

We know, at the present time, that rural children do not have the same chance for good health as city children. This is due to the fact that city communities have, as a rule, more efficient health services.

A special effort has been made to devise ways and means of supplying rural areas with a more effective health administration. Some two years ago an effort was made to interest rural municipalities in the formation of health units where the health work could be done by specially trained personnel. This, however, financially was too great a burden and no headway was made in establishing these units in rural Manitoba.

During the past year officials in the Department have been working on a plan to utilize the Nursing Service to supply more adequate health protection. It was felt that the old plan whereby a nurse was asked for by a municipality, and the municipality paid one-half of the cost of her services, was unjust in that the whole of the Province, whether they received any benefit from the service or not, paid the other half. This was particularly unfair to the poorer municipalities and unorganised districts of the Province.

It was found that by re-arranging the type of nursing work, the whole Province could be covered with a modified service by very little increase in staff and at no increase in cost to the public. In view of the fact that the health levy on the municipalities has been discontinued, the total cost of this service will be borne directly by the Department. The municipalities, however, are being urged to supply means of transportation for the nurses.

The duties of the nurse will include, among other things—

First: Examination of all new children going to school each year.

Second: Notification of defects found; visits to the homes to help; arrangements for the remedying of the defects.

Third: The holding of baby and pre-natal clinics at strategic points in each nursing area.

Fourth: Pre-natal advice to expectant mothers.

Fifth: Visiting of the homes of all those in the area who have had tuberculosis, — "tuberculosis follow-up work".

Sixth: Inspection of homes which desire to obtain a permit to keep boarded children.

Under the new arrangement each nurse will have as her territory, approximately three rural municipalities and the incorporated towns and villages therein. It is thought the maximum population that a nurse can look after in rural districts is approximately 10,000, which will give a school population of 2,000.

There are certain requisites, if the service is to be the success that it should be. These are—

First: *Trained personnel.* We think we have the nucleus for this in the present nursing service. A special course was provided in July of this year, to give all the nurses a similar type of training.

Second: *A Service at a moderate cost.* This, we think also has been arranged for, when we take into consideration that the whole province is being covered by the nursing service at no greater cost to the province as a whole than that of the service which only covered seventeen rural municipalities. Especially so, when we consider that there will be no direct charge on any portion of the province for this service, the money used for it being obtained from Consolidated Revenue.

Third: The third, and most important requisite is *"Public Support"* and particularly, support of that portion of the public which has to do with the care of children—in other words —"The Mothers of Manitoba."

INDUSTRIAL HYGIENE

F. C. PEDLEY, B.A., M.B., D.P.H. AND J. G. CUNNINGHAM, B.A., M.B., D.P.H.

A DEVICE FOR PREVENTING SILICOSIS BY COLLECTING DRILL DUST AT ITS SOURCE

ONE of the principal problems engaging the attention of industrial hygienists has been the prevention of silicosis among workers engaged in drilling in rock having a high content of silica. A distinct advance was made with the introduction of wet drilling in the mines of South Africa and a further important contribution to the subject has been announced from New York.

The rock underlying the city of New York is a schist with a free silica content as high as 84 per cent, and numerous cases of silicosis have developed among rock drill operators engaged in subway construction and foundation work there. Stimulated by the occurrence of these cases the Metropolitan Life Insurance Company, working in conjunction with the State Department of Labour and the Harvard School of Public Health has developed an individual dust eliminator to be attached to each drill, which removes most of the dust at its source. The technical description of the device is as follows:

"It resembles in shape a truncated cone, with a flat side. It is fitted with a piece of 2-in. pipe and cut into two halves; these are held together by an ordinary door spring at the back, and a small plate latch in front. The top is a ⅜-in. steel plate, 5 in. in diameter, electrically welded to the lower part of the device, made of 14-gauge sheet iron with a diameter of 8 in. at the bottom. The pipe is a 7-in. piece of Shelby tubing, 2 3-16 in. outside diameter and 2 in. inside; it is electrically welded to the lower part of one of the halves. The drill steel rotates freely within a 1¼-in. hole in the top plate. Owing to the flat side at the front of the device, drilling close to another body is possible, a clearance of only 1⅛ in. from the centre of the hole in the top being required."

The dust produced is at once drawn into the system of manifolds by which the drills are connected to a dust disposing plant.

The device has already had a practical trial in the excavation for the foundation of the new Metropolitan Building in New York City.

Engineering and Mining Journal July 13th, 1931.

THE PROGRAMME OF RESEARCH OF THE DEPARTMENT OF INDUSTRIAL HYGIENE, McGILL UNIVERSITY, MONTREAL

TWO pieces of research, one wholly clinical, the other clinical and experimental have been started and will constitute the programme of the Department of Industrial Hygiene at McGill University for the first five years of its existence.

In conjunction with the Canadian Tuberculosis Assocation and the Provincial Department of Health a survey of five thousand industrial workers in the Province of Quebec has been undertaken to determine the incidence of active tuberculosis among them. The Provincial Department of Health has been good enough to place at the disposal of the Committee their travelling diagnostican, Dr. Laberge, who is equipped with a portable X-ray apparatus. The work is done at the industrial plants and includes a complete physical examination and X-ray of every employee in the group selected. The objects of this survey are to determine the incidence of tuberculosis among people actively engaged in industry, to assess the value of pre-employment examinations and medical supervision in plants having these services and finally to remove cases from contact with others and to arrest if possible the cases discovered. Already five hundred employees in a large Montreal factory have been examined and work is progressing on a group of one thousand in another factory. Arrangements have been made to commence the study of a third group of one thousand in a short time.

A study, partly laboratory and partly clinical, of the hazards of workers engaged in the mercury trades has just started. By means of animal experimentation at McGill University it is hoped to determine the threshold of toxicity of mercury vapor in the air and to correlate this work with the examination of a group of workers in a large chemical company in the province which uses mercury as a catalyst. *R. Vance Ward.*

MENTAL HYGIENE

W. T. B. MITCHELL, M.D. and C. B. FARRAR, A.B.(Harv.), M.D.

THE PLACE OF PARENT EDUCATION IN THE PROGRAMME OF THE MENTAL HYGIENE INSTITUTE

MRS. HARRIET MITCHELL, B.A., REG. N.
Director, Division of Parental Education, Mental Hygiene Institute, Montreal.

THE inclusion of mental hygiene as an important part of the general public health movement is comparatively recent. This is a natural result of the fact that until a few years ago the tendency was to think of the mental and physical life of individuals as more or less separate and distinct, and of environment as an isolated force.

The more recent and scientific way of understanding individuals as thinking, feeling, doing organisms, whose mental and physical existence is most intimately interrelated and interdependent and whose behaviour, external and internal, is largely conditioned by experiences, emphasizes the necessity of applying preventive and positive health principles and effort to the whole, reacting individual in relation to his total situation or environment.

Ideally we feel that all teaching of hygiene should be along coördinated lines directed toward healthy integration of the physical-mental personality with satisfactory adjustment to the environment. This would mean incorporating mental hygiene principles and practices as one goes along into whatever subject matter is being taught.

At the present time such teaching conditions do not exist and the Mental Hygiene Institute is attempting to supply individual, professional and community education, information and understanding on the mental health side that will make an inclusive approach to the whole individual possible.

The Montreal Mental Hygiene Institute operates through the coöperative efforts of McGill University, the Canadian National Committee for Mental Hygiene, and the Montreal Council of Social Agencies. It has a combined clinical, educational and research programme, all mutally interdependent and contributory. The clinical and educational contact reaches the strategic groups, parents, teachers, nurses, social workers, clergymen, doctors, professional groups in training, etc., and constant effort is directed toward helping these individuals build up a constructive, well-balanced attitude toward, and understanding of, the problems of mental health.

General education throughout the community is carried on by lecture courses, talks and addresses, and printed material of various kinds. Every clinic contact is turned as far as possible to the more complete understanding of underlying principles of mental hygiene and the building up of wholesome attitudes. The clinic contacts make convincing educational material for the individual directly concerned and teaching cases for general use. The combined clinical and educational approach also has the

wholesome effect of keeping the educational programme on a sound basis. The failure and difficulties which face us in the clinical field of behaviour are invaluable in keeping our educational programme reasonably conservative.

The establishment of a Division of Parent Education as an integral part of the Mental Hygiene Institute has been a natural outgrowth of the shifting emphasis of that organization from treatment of problems of maladjustment and mental disorder to prevention and positive mental health teaching.

Repeated analysis of problem cases or cases of maladjustment treated in mental hygiene clinics, has established the rôle of the parent and parent substitute as a most important factor determining the degree of the child's adjustment or mental health. Let us consider briefly why this is so.

Personality traits are developed gradually as acquired characteristics which eventually become fixed as individual habits of thinking, feeling and doing. These habits of response are built in through the stimulus of the environment and training.

The child is born a self-centred, a social being; most of his activities are directed toward satisfying his own wants and desires. In his contacts with his environment in his early and plastic years, the child tries one method and then another of evading the restrictions and regulations imposed upon him by the demands of the group into which he is born. Through trial and error and success learning, he tends to repeat responses that bring him emotional satisfaction. Frequent repetitions insure the building in of these personally satisfying responses as personality traits.

Responses built into the developing personality in this manner may or may not be socially acceptable. Undesirable behaviour may be pleasurable and satisfying to the child; so may desirable behaviour. Which type of response is built in depends largely upon the intelligence, sympathy and maturity of those who control his experiences in the early years. Intelligent understanding of individual differences, in physical, mental and emotional make-up, knowledge of human drives and mental mechanisms, makes possible a resolution or dissipation of the inevitable conflict between the child's wishes and social necessity, sometimes through modification and redirection of individual interest, energy and desires, sometimes through wise manipulation and selection of experiences. *The ability to meet satisfactorily and adequately both the individual and social requirements of living, is a measure of adjustment or mental health.*

Such modification, re-direction and selection is brought about in the home environment provided by the parents. Parents, unaware of the emotional factors involved in all learning, have given little thought to the sound integration of necessary routine habits of health and conforming, through insuring satisfacory emotional feeling-tones as accompaniments to action.

Attempts at establishing habits are often completely frustrated by unconscious motivation of child and parent, and the parent who expects to build in a habit, by mere repetition, externally compelled, with no under-

standing of the child's feelings and desires, is apt to find that she has established a habit quite different from the one intended—the habit of rebellion, for instance; or, for example, the parent who attempts to carry out the food recommendations of the nutritionist, insisting that the child eat spinach—sometimes even resorting to force—and whose misguided efforts at establishing the habit of eating spinach through practice are completely undermined by the strong feeling-tones of dissatisfaction and displeasure built in as accompaniments; or the parent whose careful efforts at building up the habit of truth telling, by rigid and severe punishment of each distortion of fact, establishes not the habit expected, but one of evasion and deceit or perhaps fearfulness of the parent herself.

From such simple beginnings, serious maladjustments and even mental breakdown develop. What purpose is served by preserving physical health, through teaching hygiene habits, if it means only healthy bodies, having more or less sick or inharmoniously functioning minds—minds obsessed by fears, prejudices, jealousies, inhibitions? What purpose is there in lengthening the span of life, if it means only a little longer dragging out of a weary existence of thwarting, conflicts, dissatisfaction, frustration?

If we hope to avoid the continuing incidence of behaviour difficulties and maladjustments and mental disease in developing individuals we must influence the training and environment provided in the home in such manner that these forces are not casual, uninformed and emotionally directed, but intelligently and planfully controlled, and translated into reasonable lines of action.

This can only be brought about by a consistent and continuing programme of parental education—not merely a question of education on the informational level, although this is a fundamental part of the task, but an attempt to help parents to understand their own emotional lives and reactions and attitudes and their far-reaching effects upon the developing child in the home, and to want to participate in a rational re-construction of their own thinking, feeling and doing habits, if necessary and desirable.

In our parental educational programme we have avoided the term "child study groups", since we feel that such a designation is misleading. One of the most important ideals of our work is the prevention of maladjustments in children and bringing about an understanding of child nature that will help parents promote its most wholesome growth and development. A large part of our teaching is along the lines of how the normal child develops, how he reacts to different situations of control and environment at different age levels, etc., and how to handle simple difficulties that arise as normal issues of the conflict situation. All of this is necessary information. But we are also quite conscious that we can insure for the child, healthy experience, only, if integrated with such an informational approach, we provide measures for helping the parent free

himself from unwholesome attitudes, conflicts and inhibitions.

It is because parents are emotionally immature and inhibited themselves that they tend to "live through" their children in unconscious attempts at self-realization.

Consequently, in our programme of child study and informational education along these lines, we incorporate as a major part, direct and indirect help for the parent toward an objective understanding of personal difficulties, the hazards of the parent-parent, parent-child relationship, and practical help in a re-direction of creative energy to individually satisfying self-expression, and consequently a feeling of personal adequacy.

Only by gradual and fundamental re-education of the parent himself can we hope to insure the implementing of our child-nurture teaching through practice and satisfactory adjustment. Satisfactory personal adjustment means happier, emotionally stable and mature parents. Such parents are certainly better able to nurture and develop wholesome personalities in their children.

Through the Division of Parental Education of the Mental Hygiene Institute we approach the problem of re-education and education of parents in two major ways:

(1) Individual contacts through clinic and home interviews.
(2) Discussion-lecture groups.

Discussion group approach

The discussion group is made up of from fifteen to twenty people, from similar educational and economic backgrounds, usually with children of comparable ages. The group meets every week under the leadership of a professionally trained chairman. One topic is covered at each meeting. The topics are chosen either in response to the group's expressed needs or sometimes as a result of the leader's estimate of what those needs are. One's practice in programme-making depends largely upon the intelligence and experience of the study group members.

The meetings are opened by a short twenty minutes to half-hour lecture on the topic by the leader. This is followed by active discussion by the whole group, guided and summarized by the leader.

Education or re-education requires a modification of habits, beliefs, and attitudes as well as ideas. Experience has taught us that the particular value of the study group approach is that all members of the group think through problems for themselves and by their own effort gain insight into the dynamic relationship between the child's behaviour and their own attitudes.

The social participation involved in the group approach is an invaluable additional help in modifying parental attitudes. It helps the parent get a true perspective upon her problems. Gradually the parent realizes that the problems she had thought unique and very serious are perhaps a part of normal development and quite universal.

Discussion usually begins with a question, designed to stimulate thought and analysis. The responses made by the parents are returned to them in the form of questions and become the

basis for further discussion and thought.

One begins to really think when one is presented with some problem to solve or a perplexing difficulty. It is doubt, perplexity, conflict, that cause reflection. It is the striving to attain a solution — participation — that develops knowledge, that really educates.

The student must be the discoverer. To teach does not mean merely to tell, but to ask questions, receive answers and stimulate thinking. *This is an active participating process.*

With parents the process of re-education is a long one and requires infinite patience. Firmly established habits or attitudes are not easily modified. Adults are themselves the result of the experiences and training provided by their parents. Adulthood means that these personality responses are firmly entrenched as habits and difficult to change.

It is necessary to transform new ideas into actual practice as part of the process of modification or re-education of parental attitudes and behaviour. This sort of *learning to do by doing* is encouraged in the group contact. The members of the group pool their experiences in putting theory into practice and discover certain methods that have proven successful with others, or perhaps contribute something of their own. There is an increasing tendency to attack problems in an objective, impersonal, yet self-critical way, and to carefully analyze and evaluate results obtained and a follow up through modified practice.

As the group study continues there is noticed an increasing tendency on the part of individuals to recognize mental mechanisms at work in relationship situations and to get an increasingly adequate conception of their own drives and wishes as complicating factors in child training. A realization of the tremendous effects of personal drives in influencing the child's development and growth, and facing one's own responsibility for results, frequently is a very difficult experience for the parent. The leader of a group must be skilled in detecting such situations and must provide for intensive individual re-educational work with such a parent.

This is done through individual contacts, through clinic or home interviews.

Provision for personal contacts with all parents or parent substitutes is desirable as it insures individual consideration and constructive help with definite difficulties and gradual insight into personal responses. The home visits enable the leader to have a more complete picture of the total situation. She can make an impersonal evaluation of factors in the environment and help the parent in a practical manner.

The foundation of mental health is laid in childhood. The responsibility for developing those habits and personality traits which make for social usefulness, personal happiness and the ability to face life squarely, rests largely with the parents. *Parents are educators. Helping them to accomplish their tasks successfully is one of the problems of mental hygiene.*

EPIDEMIOLOGY AND VITAL STATISTICS

A. L. McKAY, B.A., M.D., D.P.H. and F. W. JACKSON, M.D., D.P.H.

Committees of the Section of Vital Statistics Canadian Public Health Association

AT the Vital Statistics Section meeting in Regina last June, the following committees were appointed:

Committee on Racial Origin: Mr. Stuart Muirhead, Provincial Department of Public Health, Regina, Sask.; Mr. A. P. Paget, Recorder of Vital Statistics, Provincial Department of Health and Public Welfare, Winnipeg, Man.; Mr. W. R. Tracey, Dominion Bureau of Statistics, Ottawa.

Committee on Non-Resident Births and Deaths: Mr. T. E. Ashton, Chief Statistician, Division of Vital Statistics, Department of Public Health, Toronto, Ont.; Dr. A. Grant Fleming, Professor of Public Health and Preventive Medicine, McGill University, Montreal, Que.; Dr. D. V. Currey, Medical Officer of Health, St. Catherines, Ont.; Dr. Paul Parrot, Statistician, Provincial Bureau of Health, Quebec; Mr. W. R. Tracey, Dominion Bureau of Statistics, Ottawa.

Committee on the Definition of Still Births: The existing committee under the chairmanship of Dr. Eugene Gagnon, Montreal, P.Q., was continued.

The following officers for the section were elected for the year 1932: Chairman, Mr. S. J. Manchester, Provincial Department of Heath, Ontario; First Vice-Chairman, Dr. Paul Parrot, Statistician, Provincial Bureau of Health, Quebec; Second Vice-Chairman, Mr. A. G. Lawrence, City Health Department, Winnipeg, Man.; Secretary, Mr. W. R. Tracey, Dominion Bureau of Statistics, Ottawa.

REPORTED CASES OF CERTAIN COMMUNICABLE DISEASES IN CANADA* BY PROVINCES—SEPTEMBER, 1931

Diseases	P.E.I.	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Diphtheria	1	10	4	163	140	49	25	14	29
Scarlet Fever	1	23	22	153	123	63	18	16	17
Measles	—	—	—	48	103	74	29	1	2
Whooping Cough	—	16	—	108	319	43	54	29	26
German Measles	—	2	—	15	12	†	—	—	4
Mumps	1	—	—	21	84	42	48	—	67
Smallpox	—	—	—	—	7	1	21	—	1
Cerebrospinal Meningitis	—	—	1	1	5	—	1	—	2
Anterior Poliomyelitis	—	1	—	389	58	6	2	5	9
Typhoid Fever	1	9	17	109	108	31	25	5	11

*Data furnished by the Dominion Bureau of Statistics, Ottawa.
†Not reportable.

CORRESPONDENCE

Course for Sanitary Inspectors

To the Editor:

In the October, 1931, issue of the Canadian Public Health Journal "AM.D." asks if there are any courses available in Canada for those wishing to qualify as Sanitary Inspectors. May I state that the Examining Board of the Royal Sanitary Institute for the Province of Quebec has, for many years, arranged courses of lectures and demonstrations for candidates wishing to qualify for the certificate of the Royal Sanitary Institute.

Such a course is in progress at the present time, and examinations for Sanitary Inspectors will be held at the offices of the Quebec Local Board in the Medical Building, McGill University, Montreal, on Dec. 4-5, 1931.

Yours truly,

R. St. J. Macdonald, M.D., Local Secretary, Quebec Branch, Royal Sanitary Institute.

Editorial Note:

The *Journal* is very pleased to receive this information relative to the provisions which have been made by the Quebec Branch of the Royal Sanitary Institute for the training of sanitary inspectors desiring to qualify for the examinations of the Institute.

Investigation of the calendars of our Canadian Universities indicates that no courses are offered by these institutions. The *Journal's* reply was based on this information. The *Journal* will be pleased to publish any further details of this course as offered in Quebec which the local committee may supply. The subject is one of real interest to public health administrators, as well as to those who may be considering the obtaining of the qualification of the Royal Sanitary Institute and who desire the necessary training.

NEWS OF THE ASSOCIATION

TWENTY-FIRST ANNUAL MEETING, TORONTO JUNE 1ST, 2ND, 3RD, 1932

AT a recent meeting of the Executive Committee of the Association it was decided to accept the invitation of the Ontario Health Officers' Association to hold the next annual meeting of the Association in Toronto in conjunction with the meetings of the Ontario Health Officers' Association during the first week of June, 1932. The dates selected are June 1st, 2nd, and 3rd.

In order to accommodate the large number who will attend this joint meeting, arrangements have been made to hold all the sessions at the Royal York Hotel. Plans are being made to provide for both scientific and commercial exhibits. The meeting promises to be not only the largest in point of attendance, but also the most important which the Association has ever convened.

It is not too early to plan to attend.

NEWS AND COMMENTS

P. A. T. Sneath, M.D., D.P.H.

Delegates of the Royal Sanitary Institute

MONTREAL and Toronto were favoured recently by a visit from the official delegates appointed by the Royal Sanitary Institute to attend the Fifty-sixth Annual Meeting of the American Public Health Association. The delegation consisted of Sir Allan Powell, C.B.E., Chief Officer of Public Assistance of the London County Council; Charles Porter, M.D., B.Sc., Medical Officer of Health, St. Marylebone, London; George F. Buchan, M.D., Medical Officer of Health, Willesden; James Fenton, M.D., D.P.H., Medical Officer of Health of the Royal Borough of Kensington.

A special session of the American Public Health Association meeting was devoted to addresses by these representatives on various aspects of the public health service in England and Wales. The interest in these addresses was evidenced by the very large attendance at this special session. Sir Allan Powell outlined "The Relation of Public Assistance to Public Health in England". Dr. Charles Porter told of "The Public Health Service in Britain from the Aspect of Education and Training". "The Present Trend of Public Health in Britain" was the subject of Dr. Buchan's paper, and "A Survey of Maternity and Infant Welfare Service in England and Wales" was presented by Dr. Fenton. The members of the delegation were honoured at the Annual Meeting by being elected to Honorary Life Membership in the American Public Health Association.

The visit of these representatives of the Royal Sanitary Institute was not only most helpful to that institution, interpreting, as they did, so successfully its great work and purpose, but was another connecting link in the chain of international health promotion. It is hoped that the American Public Health Association and our Canadian Public Health Association may have the pleasure of other visits from leading representatives of public health in Great Britain.

Bulletin of the British Columbia Board of Health

THE Provincial Department of Health has commenced the publication of a Health Bulletin in which it is purposed to present each month a short article, a monthly review of communicable diseases and notes from various Divisions of the Department. In the October issue, which is the second number of the Bulletin, Mr. H. B. French, Registrar of Vital Statistics, discusses the subject of stillbirths. The trend of tuberculosis from 1921 to 1930 in British Columbia is presented in an interesting and helpful manner. The Bulletin is largely statistical and will undoubtedly be of great service to the medical officers of health and to all who are concerned in the collection of vital statistics, as well as to those who are engaged in public health nursing and other fields of public health. The Bulletin has been inexpensively prepared, using the office facilities and appears in mimeograph form. Dr. H. E. Young, LL.D., Provincial Medical Officer of Health, is to be congratulated on the preparation of this excellent monthly bulletin.

School of Hygiene, University of Toronto

THE following graduates in medicine are taking the course leading to the Diploma in Public Health at the School of Hygiene, University of Toronto: Dr. J. U. Bédard, Amqui, Que.; Dr. A. Bélanger, Levis, Que.; Dr. A. Caux, St. Flavien, Que.; Dr. C. R. Donovan, St. James, Man.; Dr. E. Frenette, New Carlisle, Que.; Dr. W. H. Hill, Rocky Mountain House,

Alta.; Dr. G. H. Hutton, Brantford, Ont.; Dr. T. D. Kendrick, Gravelbourg, Sask.; Dr. E. Lalande, Lachute, Que.; Dr. E. Mondor, Mont-Laurier, Que.; Dr. J. A. Patenaude, Ste. Martine, Que.; Dr. J. A. L. Pelletier, Thetford Mines, Que.; Dr. N. R. Rawson, Melita, Man.; Dr. A. Somerville, Eckville, Alta.

International Hospital Association

AT the close of the second International Hospital Congress which met in Vienna last June, the representatives of 41 countries participating in the Congress voted unanimously to organize an International Hospital Association. The Secretary-General and Treasurer is Dr. E. H. L. Corwin, 2 East 103rd St., New York. The official publication is *Nosokomeion*, which is published quarterly. The third number of the current year contains twenty-two of the articles presented at the International Congress. In addition, a special number has been issued containing the ten reports of the Congress. *Nosokomeion* is published by W. Kohlhammer, Stuttgart, Germany.

New Appointments In Massachusetts

DR. FREDERICK S. LEEDER, D.P.H., (Tor.) is directing the first health unit in Massachusetts. The district which has been organized is a portion of the Berkshire area and is known as the "Southern Berkshire Health District," with headquarters at Great Barrington. The health unit has been made possible through the co-operation of the Commonwealth Fund. Dr. Leeder recently resigned as District State Health Officer in the Berkshire district in order to assume his new post, but is continuing as Assistant State Epidemiologist. Dr. Walter W. Lee, C.P.H., formerly of Ontario, has succeeded Dr. Leeder as District State Health Officer.

British Columbia

AN intensive toxoid campaign is under way in Vancouver. It is estimated that 5,000 school children have already received this preventive treatment. With the hearty support of the Vancouver School Board it is expected that the greater number of the City's 40,000 children will be reached. The campaign is under the direction of Dr. J. W. McIntosh, D.P.H., Medical Officer of Health, and Dr. Harold White, D.P.H., Chief School Medical Officer.

At the recent convention of the Union of Canadian Municipalities at Vernon, B.C., the following resolution relating to old age pensions was unanimously endorsed, namely, "That the government of Canada be memorialized to establish reciprocity or nationalization of the residence qualifications of old people, so as to entitle them to the benefits of the Old Age Pensions Act upon furnishing evidence of having resided during the 20 years next preceding application, jointly in Canada or in any other part of the British Empire.

A new nursing centre has been opened in the Peace River district through the co-operation of the Canadian Red Cross Association and the Provincial Board of Health. Miss Nancy Dunn, Reg. N., has been appointed to take charge of this Centre with headquarters at Sunset Prairie.

Dr. R. G. Large has resigned as Medical Officer of Health of Port Simpson, and is now engaged in practice in Prince Rupert. Dr. A. E. B. Perry, of Port Simpson, has been appointed Medical Officer of Health and Medical Inspector of the Osland, Port Simpson, Sunnyside Cannery, Port Essington and Haysport Schools.

Dr. Kingsley Terry of Victoria has been appointed Medical Health Officer and Medical Inspector of Schools

in the district from Albert Head to Sooke, to fill the vacancy caused by the resignation of Dr. I. B. Hudson, of Victoria.

Miss MacDermot, Reg. N., Nanaimo, has been appointed as Superintendent of the recently established Preventorium in Vancouver.

Dr. H. S. Stalker, formerly of Winnipeg, has been appointed Assistant Superintendent of the Vancouver General Hospital.

An Internes' Hostel will be constructed as part of the building programme of the Vancouver General Hospital. There will be thirty-two individual rooms, including accommodation for two assistant superintendents. Provision has been made for a library, recreation room, kitchen and a roof garden. The building will cost $40,000.

Alberta

IN the Monthly Bulletin of the Communicable Disease Branch of the Department of Public Health of Alberta for October, attention is given to the subject of the prevention of goitre. The Department of Chemistry, University of Alberta, has been making iodine determination of a series of water samples. Some samples have been found to contain only 20 per cent. of the minimum desired iodine content, namely, 5 parts per billion. In one district, 18 per cent of the school children were found by the Travelling Clinic in 1929 to be suffering from goitre. Suitable tablets of iodine are supplied by the Department for use after school surveys are made. It is recommended that one tablet per week be taken for a period of 40 weeks.

Dr. C. H. Cooke, for twenty years Superintendent of the Alberta Provincial Mental Hospital at Ponoka, has resigned from that position. Dr. Cooke will engage in private practice in psychiatry on the Pacific Coast.

Dr. George Davidson has been appointed to the staff of the Mental Hospital at Ponoka.

Saskatchewan

MISS H. B. SMITH, who has been Acting Superintendent of Nurses at the Regina General Hospital, has been installed as Superintendent of Nurses.

Manitoba

DR. ROSS MITCHELL, Winnipeg, was elected President of the Manitoba Medical Association at the recent meeting of the Association in Brandon. The following additional officers were elected: Dr. E. C. Barnes, Selkirk, and Dr. G. P. Armstrong, Portage la Prairie, Vice-Presidents; Dr. F. W. Jackson, Honorary Secretary; Dr. F. G. McGuiness, Winnipeg, Treasurer.

During the recent sessions of the Manitoba Medical Association in Brandon, the Brandon Rotary Club conferred life membership on Dr. D. A. Stewart, Medical Superintendent of the Manitoba Sanatorium at Ninette.

The corner stone of the new Arts Building of the University of Manitoba on the Agricultural College site was laid on September 26th by Archbishop Matheson, Chancellor of the University. Premier John Bracken gave an address.

Dr. I. M. Cleghorn, D.P.H., who was Acting Epidemiologist in the Department of Health and Public Welfare, is directing the St. James and St. Vital Heatlh Unit during the absence of Dr. C. R. Donovan. Dr. Donovan is engaged in post-graduate study in public health at the School of Hygiene, University of Toronto.

The Hon. Gideon Robertson, Federal Minister of Labour, has approved of a new addition to the Brandon Mental Hospital at a cost of $225,000. The Federal Relief Fund will pay fifty per cent. of the labour cost.

An addition to the Central Tuberculosis Clinic, Winnipeg, to accommodate thirty beds, is being erected on Bannatyne Avenue at a cost of $38,000.

Ontario

MISS EDNA L. MOORE has been appointed Director of Public Health Nursing of the Division of Child Hygiene of the Ontario Department of Health. Miss Moore is returning to Toronto after serving for the past two years as Assistant Director of the National Organization for Public Health Nursing, having charge of a joint project in social hygiene with the Social Hygiene Council. Her work in bringing a social hygiene programme to nurses throughout the United States has been an outstanding success, and it is with great regret that these Associations part with her services.

The annual meeting of the Community Health Association of Greater Toronto was held recently in the Academy of Medicine, Toronto. The following officers were elected by the Association: President, Miss Ruby Hamilton, Ontario Division of the Red Cross; First Vice-President, Mrs. George Hanna; Second Vice-President, Miss H. Hefferman, Director of St. Elizabeth Nurses; Secretary, Miss Isobel McLeod, Department of Public Health of Toronto; Treasurer, Miss M. Wheeler; Councillors, Miss M. MacKay, Ontario Hydro-Electric; Miss E. Campbell, Superintendent of the Victorian Order of Nurses; Miss D. Mickleborough of the Provincial Department of Health, Miss M. Stewart of the Psychiatric Hospital, Mrs. Dewey of the T.G.H. Social Service, and Miss E. de V. Clarke of the Department of Public Health, Toronto.

The new St. Joseph's Hospital, North Bay, was officially opened by the Hon. Dr. J. M. Robb, Minister of Health, on October 7th. Dr. George W. Smith, president of the medical staff of the institution, was chairman, and addresses were given by Dr. A. E. Ranney, Medical Officer of Health, Mayor Robert Rowe and others.

Dr. C. E. Dolman, M.B., B.S., D.P.H., of St. Mary's Hospital and Medical School, London, England, has been appointed recently a member of the research staff of the Connaught Laboratories, University of Toronto. Dr. Dolman assumed his new duties at the end of September.

Dr. Gordon Moffat, D.P.H., formerly of Weston, Ont., is directing the Grayling County Health Unit, Michigan, during the absence of the director of the Unit at Harvard University.

Dr. Bruce Wilson, D.P.H., a member of the staff of the International Health Division of the Rockefeller Foundation, after a holiday in Toronto has returned to Rio de Janeiro, where he is directing the campaign against yellow fever.

The 33rd annual convention of the American Hospital Association was held in Toronto at the end of September. The Convention was accommodated in the Automotive Building, Canadian National Exhibition. From every standpoint the Convention was an unqualified success. Of particular interest to Canadians was the organization of the Canadian Hospital Council and the Ontario Conference of the Catholic Hospital Association. Celebrating the first meeting of the Association in Canada, Dr. George Stephens, Superintendent of the Winnipeg General Hospital, was chosen as President. The following officers were elected to constitute the first

executive of the Canadian Hospital Council: President, Dr. F. W. Routley, Toronto; Vice-President, Mr. W. R. Chenoweth, Montreal; Secretary-Treasurer, Dr. G. Harvey Agnew. The formation of this Council is in accordance with the expressed desire of hospital authorities throughout Canada. The council has been afforded office space, secretarial services, and library facilities by the Canadian Medical Association in its Department of Hospital Services.

Miss Nettie Fidler, formerly a member of the staff of the Toronto General Hospital, has been appointed Superintendent of the Psychiatric Hospital, Toronto.

Dr. G. H. Stevenson, Medical Superintendent of the Ontario Hospital, Whitby, has returned after an extended visit in England and the Continent.

Quebec

CONSTRUCTION of the new addition to the Western Division of the Montreal General Hospital has been commenced with the objective of having the building complete by next summer. The building will be ten stories in height and will accommodate 104 beds and the requisite number of nurses. It will be thoroughly modern and the cost is estimated at $1,000,000.

New Brunswick

MISS H. E. HIVEY has recently been appointed Superintendent of the Mirachichi Hospital. Miss Hivey has had extensive experience as Superintendent of the Training School for Nurses of the Kings Provincial Memorial Hospital, Burwich, N.S., and in V.O.N. work in Sackville.

Nova Scotia

THE Hon. Dr. G. H. Murphy, Minister of Public Health, has announced the extension of the laboratory services to hospital superintendents and to the medical profession. Under the direction of Dr. R. P. Smith, Provincial Pathologist, examination of all specimens of tissue sent through any hospital will be examined free of charge. This work will be done in the Public Health Laboratory, which is under the direction of Dr. G. J. MacKenzie. In the past Dr. Smith was responsible to the Board of Commissions of the Victoria General Hospital. Dr. Smith's relationship with Dalhousie University will continue as in the past. This is a definite step in the effort to attack the cancer problem in Nova Scotia. As a further step a radium treatment clinic will be made available at the Victoria General Hospital, also through the co-operation of the Provincial Government.

Dr. J. J. MacRitchie has been appointed Divisional Medical Officer of Health, Provincial Department of Public Health.

In a recent address to the members of the Union of Nova Scotia Municipalities, the Hon. Dr. G. H. Murphy emphasized the need for the control of tuberculosis. Emphasizing the need for systematic nursing in the home, Dr. Murphy stated the nursing services of the province should be developed along the lines of the county unit system.

Dr. Edward R. Davies has been appointed Acting Assistant Medical Superintendent of the Nova Scotia Hospital, Dartmouth. Dr. Davies has had previous psychiatric experience at Brandon Hospital, Manitoba.

Dr. Henry DeWolfe and Dr. Archibald, graduates of Dalhousie University, are members of the staff of the Massachusetts State Department of Health. Dr. Wolfe is an Assistant Director of Venereal Disease Control, and Dr. Archibald is serving as District Health Officer for the North-East Area with headquarters at Lynn.

Books and Reports

D. T. Fraser, B.A., M.B., D.P.H.; R. R. McClenahan, B.A., M.B., D.P.H.

Handbook of Protozoology—*By Richard R. Kudo, D.Sc., Assistant Professor of Zoology, University of Illinois. Published by Charles C. Thomas, 220 East Monroe Street, Springfield, Illinois,* 1931. *About* 450 *pages; illustrated by* 175 *etchings, containing* 1,463 *figures. Price,* $5.50 *postpaid.*

This volume is in the nature of a compendium dealing with the common and representative genera of both the free living and parasitic protozoa, designed primarily for the use of advanced students in biology, zoology, etc. In producing a "concise handbook" it is naturally not possible to deal with complete facts, thus while this volume will be of considerable value to the unrestricted biologist, the material of medical and public health value is very much submerged and not sufficiently detailed.

The profusion of well-executed figures is most helpful as are also the references to be found at the end of each chapter.

P. A. T. S.

A Manual of Tuberculosis for Nurses—*By E. Ashworth Underwood, M.A., B.Sc., M.B., Ch.B., D.P.H. (University of Glasgow), Medical Superintendent, Oakwood Hall Sanitarium, Deputy Medical Officer of Health and Tuberculosis Officer, County Borough of Rotherham. Publisher, E. & S. Livingstone,* 16-17 *Teviot Place, Edinburgh,* 1931, *pages,* 272. *Price, cloth,* $2.50.

In this manual the author has set out in a very concise and clear form the various phases of tuberculosis, especially as it pertains to the nurse.

The nurse is well counselled as to the proper management of cases suffering from chronic tuberculosis, especially as to psychotherapeutic measures. We believe more stress might have been added to the chapter dealing with cough and care of the sputum. We refer to the importance of the patient covering the mouth with gauze while coughing and frequent changing of the sputum cups when there are copious amounts. The care of the dishes is of importance to the nurse doing private work. Sterilization or segregation or both might be practised.

Periodic health examinations of all nurses checked by X-ray films should be mentioned and stressed. We believe this should be done on entering hospital and at least yearly thereafter.

The salient points are well covered, and this work ought to be of distinct value to a nurse entering upon her duties in a sanatorium or a private case.

There are fourteen chapters with many excellent illustrations. The material is presented in a very attractive form.

M. H. B.

Abdominal Pain. *John Morley, Ch.M., F.R.C.S., with an Introduction by J. S. B. Stopford, F.R.S. (Macmillan and Co., Toronto,* 1931. 185 *pages,* 22 *figures,* $3.00.

In this monograph Mr. Morley has devoted himself to the establishment of a new theory concerning the nature and causation of abdominal pain. His succinct conclusions are the result of many years of careful observation and of keen perceptive thought. The current conception of the nature of abdominal pain is based upon the work of Ross (188,7), particularly as elaborated by MacKenzie into his theory of viscero-motor and viscero-sensory reflexes. Morley points out certain important shortcomings in the viscero-sensory theory, and then upon a basis of personal observation and experiment, advances a new theory which conforms much better to the known facts.

The important facts upon which his theory is based are: 1. The abdominal viscera are incapable of pain perception when stimulated by touch, cutting, pressure, traction, burning or chemicals; 2. The only stimulus which causes visceral pain is increased tension within the viscus; 3. The parietal peritoneum is exceedingly sensitive to all forms of stimuli and the pain so induced is referred to a skin segment of corresponding spinal level. The most striking illustration of this is the shoulder tip pain induced by stimulation of the under surface of the diaphragm. Morley's carefully marshalled facts lead him to believe that abdominal pain is of two types: 1. Visceral pain induced by increased tension within a viscus either from obstruction of its lumen or from more powerful peristalsis, or from both. This is vaguely localized in the centre of the abdomen; 2. Referred pain located in a skin area, which corresponds in spinal innervation to an area of parietal peritoneum which has been stimulated by trauma or disease. The latter is the more common and therefore the more important type of pain. Morley believes that this type of pain always arises as the result of stimulation of the parietal peritoneum, and not from impulses arising in viscera and transmitted by the autonomic nervous system. He advances many observations which support his theory, notably the shoulder tip pain induced by stimulation of the inferior surface of the diaphragm; the shifting of the point of pain (and tenderness and rigidity also) of duodenal ulcer with the change of the patient's position, and the variation in the position of the pain of acute appendicitis, dependent upon the position of the appendix. While he has some difficulty in explaining the painful manifestations of pain in certain abdominal viscera, notably the urogenital system, on the whole the theory he advances presents the most reasonable explanation of known facts. His book is an important contribution to the interpretation of abdominal pain. It should prove to be of great value to clinicians and of interest to physiologists. It seems likely that his theory will replace that of MacKenzie. R. I. H.

BOOKS RECEIVED

What the Public Should Know About Childbirth. By Walker B. Gossett, M.D. Publishers, The Midwest Company, 1645 Hennepin Avenue, Minneapolis, Minn. Price, $2.00, 1931.

Common Pests. By Rennie W. Doane, Professor of Zoology, Stanford University. The Essential Facts About the More Common Pests that Directly Affect Man, His Domestic Animals, His Plants, His Crops, His Storehouse, and His Home; Practical Suggestions with Regard to Control are given. Profusely illustrated. Publishers, Charles C. Thomas, 220 East Monroe St., Springfield, Illinois. Price, $4.00, 1931.

Annals of the Pickett-Thomson Research Laboratory, Volume VII, The Pathogenic Streptococci—The Role of the Streptococci in Erysipelas Skin Disease, and Measles.. Published for the Pickett-Thomson Research Laboratory, St. Paul's Hospital, 24 Endell Street, London, W.C. 2, by Balliere, Tindall & Cox, 7 and 8 Henrietta Street, Covent Garden, London, W.C. 2; in America, The Williams and Wilkins Company, Baltimore, U.S.A., 1931. Price, $10.00.

Report of the Laboratory Conference on the Serodiagnosis of Syphilis Convened at Montevideo by the Institute for the Prevention of Syphilis of Uruguay, September 15th to 26th, 1930. Publishers, Health Organization, League of Nations, Geneva, 1931. Price, 3/3; 80c. Series of League of Nations Publications, III. Health, 1931, III, 4.

The Child from One to Six, His Care and Training. Publication No. 30, United States Department of Labour, Children's Bureau, Revised, January, 1931. Price, 10c.

CURRENT HEALTH LITERATURE

These brief abstracts are intended to direct attention to some articles in various journals which have been published during the preceding month. The Secretary of the Editorial Board is pleased to mail any of the journals referred to so that the abstracted article may be read in its entirety. No charge is made for this service. Prompt return (within three days) is requested in order that the journals may be available to other readers.

Homologous Antipneumococcal Serums in the Treatment of Lobar Pneumonia—A review of the treatment of pneumonias caused by Types I and II pneumococcus with specific concentrated antibody—including the data in 26 cases treated by the authors. Though mention is made of 15 controls of Type I or II and of 47 untyped, comparison is impossible as the results in these controls are not stated. The authors are strongly in favour of specific treatment.

Armstrong, R. R., and Johnson, R. S.: B.M.J., No. 3673, pp. 931-936.

Smallpox and Chickenpox—One of a very readable series of short articles on "Communicable Diseases in the Home," telling the story of the value of vaccination in a popular and interesting manner.

Bauer, W. W.: Hygeia, v. 9, No. 11 (November), pp. 1024-1028.

A Night Industrial Dental Clinic in Montreal—The clinic was established by the Industrial Clinic at the Montreal General Hospital in 1928, primarily for the working man or woman who has a job and can pay in part for treatment. It was financially possible through the Industrial Clinic absorbing administration costs, leaving the fees received for the payment of the attending dentists, and by the co-operation of the various industries associated with the clinic.

Ward, R. V., and Ridley, F. G.: J. Indust. Hyg., v. XIII, No. 8 (October), pp. 269-272.

Undulant Fever Outbreak Traced to Milk Supply—Six cases occurred in a town of 5,000 population from September 1930 to January 1931. Each case used raw milk from the same dairy. A large proportion of the cows in this herd gave laboratory evidence of brucella infection.

Hasseltine, H. E., and Knight, I. W.: U.S.P.H. Reports, v. 46, No. 39 (Sept. 28th), pp. 2291-2300.

A Water-Borne Typhoid Fever Outbreak with Unusual Epidemiological Features — An outbreak of one hundred cases (with five deaths) occurred in Seneca Falls, New York, with a population of about 7,000. The story of the epidemic is the old story of cross connections between the city water supply and a water supply of doubtful purity by a manufacturing plant. (Such connections were made illegal in New York State in 1926.)

Sears, F. W.: Am. J. Pub. Health, v. 21, No. 9 (September), pp. 1019-1023.

The Effect of Pasteurization Upon the Vitamin C Content of Milk in the Presence of Certain Metals —Aluminum, tinned copper and copper tubular pasteurizers were studied. The milk was heated aerobically. The destruction of vitamin C was placed at from 20 to 40 per cent in aluminum. Pasteurizing in naked copper resulted in a destruction of at least 80 to 90 per cent of the vitamin C content. Aluminum is as satisfactory a material for equipment as is at present available.

Schwartze, E. W., Murphy, F. J., Cox, G. J.: J. Nutrition, v. IV, No. 2 (July), pp. 211-225.

Carrier Infection Among Family Associates of Diphtheria Patients—A further valuable contribution to our knowledge of the carrier state, based upon the epidemiological studies of diphtheria carried out in Baltimore during the years 1920 to 1925 inclusive.

Kusama, Yoshio and Doull, J. A.: J. Prev. Med., v. V, No. 5 (September), pp. 369-381.

Raw Milk Versus Pasteurized Milk—A timely comment on the publicity which has been given to an article by Scott and Erf of Ohio State University, entitled "Ohio Tests Prove Natural Milk is Best." The findings of the Committee on Milk of the Conference of State and Provincial Health Authorities of North America, emphasize the fact that the experiments of these authors with raw and pasteurized milk were not comparable.

Editorial, J.A.M.A., v. 97, No. 14 (October 3rd), pp. 1005.

Vitamin A and the Common Cold—A study at the Montreal Foundling and Baby Hospital was made to determine if infants supplied with large amounts of vitamin A over a period of months would show a higher resistance to upper respiratory infections. A group of forty infants, which were supplied with the amount of vitamin A usually given to normal infants, formed the control group. The test group consisted of twenty infants. No appreciable difference was found in the incidence in the two groups.

Wright, H. P., Frosst, J. B., Puchel, F., and Lawrence, Margaret R.: Canad. M.A.J., v. XXV, No. 5 (November), p. 412.

A Microscopic Method of Typing Pneumococci by the Use of Stained Organisms—Hanging drop preparations of stained organisms (gentian violet) are employed. The method involves the use of a shaking machine to secure rapid agglutination (5 minutes or less). Advantages claimed over the Sabin "stained slide method" are accuracy and speed.

Calder, R. M., J.A.M.A., v. 97, No. 10 (September 5), pp. 698-700.

Investigation of Silver Nitrate Ampules and Capsules (beeswax, etc.) Examination by the Council on Pharmacy and Chemistry, A.M.A., of a number of samples showed that the strength of the silver nitrate (one per cent) to be generally somewhat greater than the amount claimed and that practically none of the silver is absorbed by the wax capsule. Glass ampules are open to the danger of the presence of fragments of glass in breaking.

J.A.M.A., v. 97, No. 10 (September 5), pp. 706-707.

The Effect of Vitamins A and D in Resistance to Infection — Is it proper to refer to vitamin A as an anti-infective agent? Young white rats were kept on a vitamin-A-free-diet for 6, 8 and 10 weeks. Each group was given, then, an intraperitoneal injection of virulent bacteria. Markedly decreased resistance as compared with a control group was demonstrated before other signs of vitamin A deficiency appeared. Marked susceptibility to infection was evident as early as the fourth week in the deficiency diet group, appearing before physical signs of deficiency were present.

Boynton, L. C., and Bradford, W. L.: J. Nutrition, v. 4 (September), p. 323.